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EDITED BY

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ORIGINAL ARTICLES.

"THE TEMPTATION OF SKILL" WITH SPECIAL REFERENCE TO OPERATIVE GYNÆCOLOGY.

By **EUGENE COLEMAN SAVIDGE, M. D.,**

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THREE opinions upon specialists are to the purpose of my paper. One is from a bright society woman, knowing the before and after of surgery in her large acquaintance of women. Another is from an exceptionally keen lawyer, an adept at psychology, a searching dissector of men and motives. And the third is from a gynecologist who has himself done considerable radical work.

Said the woman: "Do not female specialists often get beyond themselves in their anxiety to haul and out and sew the internal organs of women?"

Said the lawyer: "The temptation of skill is so great that it cannot be safely disregarded in accepting the verdict of our leading surgeons. The general medical consultants defer so entirely to the specialist that no new light can be had from them. One knows not what to do." As family head, he was debating whether to accept the opinion of leading specialists that an abdominal section was necessary for a relative.

Said the gynecologist: "The operation of hysterectomy has become almost perfect. The French are so expert that child-bearing has become a grave question in France, and the government is giving pensions to those of large family. The government would do better to pension its surgeons, and thus save the child-bearing powers of the women."

Among medical men as well as among the laity the opinion is growing that specialists have been operating too much. The crowd and enthusiasm at a recent meeting of the New York Academy of Medicine, called to consider this very point, showed how warmly those qualified to judge the subject are feeling.

Do the general consultants abjectly defer to the specialists in deciding for or against an operation? Are surgeons unduly subject to the temptation of skill? And is this reaction and protest an unmixed good? No one comprehending the motive of my paper will call me an apostate to my specialty.

Woman's Debt to Gynecology.—The debt that woman owes to the surgical audacity of man is beyond computation. Disgusting troubles, heretofore hopeless, are now cured as daily routine. Life-threatening, life-taking afflictions—perils formerly not even known to exist—can now be diagnosed and removed by the hospital interne. Take, for example, reports covering four years' work on the single life-menace of ectopic gestation: HENNIG reports 122 cases; CAMPBELL, 75 cases; MARTIN, 77 cases; PARRY, 214 cases. As other operators throughout the world have fallen upon a like number of cases, formerly surely fatal and now entirely curable, the army of women now living, who would be under the sod but for gynecology, can be calculated. The

ability to attack this one malady would redeem the specialty if it had accomplished nothing else. The women saved from death by pedicle torsion and intra-peritoneal ruptures would likewise make an imposing array. If we could assemble these women at Chickamauga camping-ground, and marshal them into army corps—these lives literally given to the world by the new specialty—gynecology would have militant numbers behind it when placed "on the defensive," as it now undoubtedly is.

Gynecology a New Specialty.—I emphasize the newness of the science of the diseases of women. Its newness will explain why some of its work has been tentative. It will repay one to hunt for the scant literature of the subject appearing before 1860. Formerly, the vaguely conceived troubles of females, not formulated in any text-book, were treated upon the medical divisions of hospitals, and were briefly discussed in the medical colleges at the close of the obstetric course by the professor of midwifery.

Goodell, the First Professor in Gynecology.—GOODSELL, of Philadelphia—a contemporary—held the first Chair of gynecology ever established in a medical college. Other colleges followed the University of Pennsylvania in establishing the new professorship; text-books were written; a few hospital beds were set aside for diseases peculiar to women—and from the MARION SIMS tent in Georgia the movement grew to the dignity of the Woman's Hospital in New York.

The French Academy on Ovariectomy.—Germany, France and England joined this American movement. Yet we read that in 1856 the French Academy condemned the operation of ovariectomy. Imagine the weight of the authority of the Academy, and the audacity of the pioneers who dared say that the respected leaders were wrong.

Operative Activity in the Virgin Field.—Under presumptuous leadership the new science evolved. It transferred completely a large body of patients from the medical man to the surgeon. A crop of new specialists sprang up, all eager for skill and glory. The field was so virgin that each bright mind had a new device or a new instrument to carry his name down the surgical corridors of time. Operative activity became immense. The men with hospitals averaged about a hundred abdominal sections a year. Even small towns caught the enthusiasm, and young men felt the odium attaching to the inability to report a hundred "sections." Surgeons even paid the way of patients through hospitals for the privilege of operating upon them, and for a time all patients who did not die were reported as successes.

Changing Ideas.—A living patient after operation was the primitive goal. A certain number of operations were required to establish how few women would die under abdominal section. And this is about all the information to be drawn from statistics. They cast no light upon whether the last condition is better than the first; whether benefit has been conferred upon the patient.

The reaction came. Women who had been led to expect so much from the new and miraculous operations

found 'their way back to the dispensary or consulting-room. In one thousand cases applying to me for gynecological treatment, nearly one-tenth were women who had already been operated upon. These ailing post-operative cases among the sick women form a tremendous propaganda against the operator, and have much to do with placing the specialty "on the defensive."

The work of the statistic maker—a brave and priceless work—is done. He has established how many cases can live after operation. There it stands, 'this operative possibility—tried, justifiable, and ready for use. That question settled—the practicability of the procedure—the profession has passed to the next issue: What cases require this effective measure? Realizing how entirely tentative was much of the work reaching up to this point, the professional mind has been driven to the other extreme of conservatism. That this reaction is an unmixed good is far from true, as any one must feel who has stood beside a dying patient, lost for the want of a knife thrust.

What, briefly, may be considered the latest conservative view regarding operations upon women?

Reparative Work.—There ought to be no dispute about any work of repair. Even the day-laborer will hunt the doctor to stitch a gaping wound. A woman should have the subject of repair presented to her in the same aspect.

Laceration of the Perineum.—Take, for example, a laceration of the perineum. Authors differ in their estimate of its frequency. Some place it as high as one-third in primiparae, no matter what device for its prevention is attempted. The writer, favored by the character of the cases, succeeded in getting as low a percentage as 4.5 per cent. at the Sloane Maternity Hospital, and this record was beaten in less than a year by a succeeding interne at that institution. In private practice ten per cent. is a good showing. These lacerations, too extensive to be remedied by nature or by the obstetrician's casual suture, should be carefully repaired; likewise an over-distention of the vaginal wall. If it is neglected, there follow prolapse, erosion, varix, and all the disorders attending pelvic congestion. Pelvic congestion is a serious menace to longevity.

Lacerations at the Cervix.—Lacerations at the neck of the womb have occasioned much hard feeling in the profession, and have given rise to many misunderstandings among patients. The profession would do well to enlighten women about lacerations at the neck of the womb. We should tell why it is beyond our power to prevent them, and why there is even no practical device known to the profession for so doing. We should teach that many will heal spontaneously if attention is paid to them during the months following confinement; that it is by no means settled as wisdom to sew them at the time of confinement; and that the doctor who tells a patient with such trouble that she was "neglected in confinement" is either dishonest, or means that the patient neglected herself after she dismissed her obstetrician, by failing to have local attention. If women were so enlightened, it would be less easy for a contemptible medical

thief to poison the mind of a patient against the man who carried her conscientiously through a wearisome confinement. Nor would it be deemed a confession of bungling to tell of a laceration needing attention. Then all might receive attention, fewer would require operation, and none need be passed silently to avoid criticism. Such lacerations when neglected may bring catarrh, metritis, sterility, nervous troubles, tubal involvement, and pelvic congestion. And how often is this condition, which is a progressive development made possible by the patient's neglect of herself, charged years afterward to the carelessness of the obstetrician!

Result of Neglect during the Three Months Following Confinement.—A soggy, subinvolved womb will swell at times as much out of shape as a dropical leg or abdomen; and a nick that would otherwise heal and leave no more trace than a shaving-wound of the face, is thereby exaggerated, rendered indolent, and made to granulate into a scar. Lack of attention to the womb during the three months following confinement is where the neglect occurs. This point cannot be accented too strongly. When women know it, and act on the knowledge, trachelorrhaphy will be practically banished from gynecology, and operations for retrodeviation will become rare events. But until this is thoroughly understood, there will remain numerous cases needing repair. And no one who has seen the repair rightly made in proper cases will dispute the brilliant result. It puts to flight almost invariably the aching back and side dependent upon the trouble.

Curettage.—Curettage is really reparative work, and, when rightly done, is the most important procedure in gynecology, upon the basis of life saved. The name does not adequately describe the procedure. The scraping of the uterine walls is the least important point. Many blunder through misconception on this point. One could better dispense with the very instrument of curette which gives the operation its name, than to disregard the fenestrated forceps, or lose sight of the aim of each curetting. For the procedure is designed to examine for diagnosis, to empty, to irrigate, to drain, to pack for stimulation, to contraction, as well as scraping, a relatively minor matter. In many of the most successful cases of "curettage" the curette is hardly needed, as, for example, the removal of matter in milk.

Immediately after abortion this procedure—this examination—is imperative. Some obstetricians dissent and urge the expectant treatment. But the reply is that the expectant treatment guesses and hopes that nothing has been left behind, while the operative plan sees—with the instrument, of course—that all is well. Most of these cases treated expectantly come ultimately to the gynecologist, and many demand formal curettage after months of exhausting blood loss.

In cases of sepsis after abortion, criminal or otherwise, there can be no possible debate about the immediate necessity of cleaning out the infected centre. The physician falling in with a case of criminal abortion is really imperilling good life chances if he waits to see whether the patient will die or get well before he decides whether his treatment shall be to notify the coroner or to continue in expectation. This is so self-evident that it is trite; yet it is what occurs all the time.

In sepsis after child-birth, the procedure should be resorted to as often as necessary, though with precision each time. Nothing could be more dangerous than simply stirring up foul matter in a soggy womb. Only the formal operation should be undertaken, and this with a thoroughness which implies something more than merely scraping uterine walls. The following case will illustrate: The writer was called to remove the uterus of a post-partum case green with sepsis. She had received curettage some days before from a prominent operator, who had since been called from town. It was therefore thought that ultimate benefit had been derived from curettage. Nevertheless she was once more formally curetted; the pulse and temperature came down; and the life seemed saved. A few days later, however, up went pulse and temperature, and the patient again became green. This time the first operator, having returned to the city, curetted the patient for the third time, and she recovered. The lesson is plain.

The Curette and the Pus Tube.—While no one hopes to draw off pus tubes by curettage and drainage, it is surprising what huge, perimetrial masses do disappear after the operation. Nature puts a hard fortress of induration between infection and the rest of the body, and any one who has seen the swelling of a bee-sting come down after the minute source of infection has been removed will comprehend the analogy in the broad ligaments. Frequently major operations—double salpingo-oophorectomy for small fibroids—have failed to relieve uterine hæmorrhage until the secondary operation of curettage has been done. The writer has often felt convinced that curettage at the start would in some cases have obviated the more dangerous procedure. Much of the benefit following plastic work and operations for retrodeviation can reasonably be credited to the accompanying curettage. In skilful hands the curette never endangers life.

Dilatation of the Cervix.—This is another function-conserving, non-life-endangering operation. It gives brilliant results in antelexion following infantile uterus; and in antelexion and stenosis as a penalty of congestion and auto-infection, or following the infectious diseases, or from external infection—a condition of dysmenorrhæa, muscular cramp at the cervical bend, and sterility. While sterility is not always overcome by the procedure—for there is the male element involved as well as the additional question of tubo-ovarian integrity—there is almost always relief from pain. The patients express themselves as feeling "lighter."

Also, I have noticed that almost invariably when the sensual sense and power of orgasm have been lacking in women with the knotty, antelexed type of uterus, dilatation has bestowed both; and this endowment is sometimes of importance in some families.

Operations Precluding Debate.—It is, therefore, not the "surgical itch," nor the "temptation of skill," but rather sound conservatism, which leads gynaecologists to urge the operations described. We now pass to a larger class of work.

Specific Operations for Retrodeviations.—I have elaborated this subject in a recent paper on "Retrodevia-

tions." I have the temerity to venture that few of these operations will be done by the next generation of gynaecologists. There are several reasons. Gynaecology has flourished upon the neglect that patients entail upon themselves after confinement. Patients are being enlightened, and the gynaecological surgical harvest is already dwindling in consequence. Second: enlightenment in preventive gynaecology—the growing branch of the specialty—will induce those patients who acquire retrodeviation in spite of effort to select "the cheaper, better, safer plan of recurrent treatment" for retrodeviation in all cases in which this plan gives satisfactory results, and in which the patients have sufficient intelligence to weigh inevitable alternatives. Of course this is a prospect which will be combated by those whose chief skill and income lie in the direction of retrodeviation operations.

Cæsarean Section, Symphysiotomy, Craniotomy, etc.—These are domestic and religious questions. As the new science becomes more evolved—as women become more enlightened—there will be fewer of these except among the ignorant and self-neglectful, and by deliberate choice. Military and naval careers have certain physical requirements which are not guessed at. Matrimony and maternity are as important, and we should not guess and hope about pelvic conjugates. The religious and domestic question settled in the case of obstruction discovered at term, there is no doubt, even in the lay mind, about the necessity of getting the child out. These operations are ruled out of the debate.

Abdominal and Vaginal Section.—Abdominal and vaginal section (including ovariectomy, salpingo-oophorectomy, and hysterectomy) make up the class of work in which the fame of every prominent gynaecologist has been won. And this is the field of the sharpest debate. Some of these operations urged by gynaecologists—as for epilepsy and the psychoses—are characterized as criminal by others. Let us narrow the field.

Malignant Growths.—A malignant growth, all agree, should be removed as promptly and as thoroughly as possible, together with all contiguous tissue likely to be invaded. There can be no debate, if the diagnosis is clear, about the necessity for operating for the rupture of a pus sac or blood-vessel, or the torsion of a pedicle, or the rapid absorption of poison from an infecting centre, or the strangulation of an intestine or excretory duct by pressure or otherwise. Delay is death, and although the operation may endanger life up to ninety-nine per cent., and destroy a function, and spoil some fancy statistics, this is the lesser evil. Wretched is the man who allows either his statistics or habit of conservatism to delay radical measures!

Ectopic gestation, likewise, requires prompt attention, and the subject precludes debate.

The Debate on Appendicitis.—Appendicitis is quite related to the purpose of the paper. Surgeons admit that seventy-five per cent. of all cases will recover without operation, but claim that ninety-eight per cent. could be saved by operating promptly on every case as soon as discovered. This discloses a debate of great significance, for physicians are disinclined to turn all cases to the surgeon. MORRIS has estimated that there are two

hundred thousand new cases of appendicitis discovered each year in the United States. If this is true, and the surgeons are right, forty-six thousand of them would be ruthlessly sacrificed under medical treatment. But physicians assert (and I wish I knew whether truly or not) that autopsies upon subjects that have died from other diseases than appendicitis show old inflammatory processes about the appendix in one-third of the cases just as old tuberculous cicatrices are found in the lungs where tuberculosis has never been suspected. In other words, one-third of all coming to the autopsy table, and by inference a large proportion of the population, have gotten well spontaneously from an unsuspected trouble which would have subjected them to a life-endangering operation had they fallen into the hands of a surgeon of sufficient skill to make the diagnosis.

When surgeons extol the skill necessary to make diagnosis in doubtful cases, physicians retort that these are the cases in which diagnosis would better not be made. Obviously the subject has not crystallised, and is in process of evolution. But even the laity clamour for an operation when there is recognized tumour and poisoning from pus absorption.

Small Fibroid Tumours.—I come now to the less urgent cases of small fibroid tumours, swollen and tender fallopian tubes, ovaries, etc. These are the cases which walk about with slight disability, hope for a miracle from an operation, and spread distrust of the surgeon when they find it does not come.

Remembering the dangers from fibroids—pain, hæmorrhage, growth and pressure symptoms; and malignant or septic degeneration—there is some justification in operating upon them in the improvident and self-neglectful as soon as discovered. And some operators adopt this plan. But the more intelligent—those again who can weigh inevitable alternatives—can often be carried under observation to the time of life when fibroids frequently disappear. Nor is it wise to sneer at hope of benefit from treatment. Many tumours do grow steadily smaller under treatment, and some have disappeared entirely. But consent to temporize should be given only upon the well-understood condition of constant observation, for even conservatism prompts early operation in all cases in which the growth steadily increases.

The Menopause and Fibroids.—The menopause does not bring relief for all fibroids; many give their worst symptoms thereafter. Some operators report that nearly half their hysterectomies for fibroids were upon women over fifty years of age. The earlier, therefore, that an inevitable operation is done, the better are the size of the tumour, the extent of the adhesions, and the condition of circulatory system. Yet many operations can be avoided by constant supervision.

Small Pus Tubes.—Pus in the fallopian tubes often gives less evidence of its presence than pus in any other portion of the body. It has often been discovered by accident, having given no symptoms. All operators have seen supposed pus tubes prove to contain an exudate capable of absorption. Many of us have had patients, who obstinately refused operation for pelvic masses, return to us after five or six years without treatment, with pelvis entirely clear.

Radical or Conservative Surgery.—Assuming recurrent attacks of pelvic peritonitis and a pus tube, what then? Suppose we had an abscess of the liver, or finger, or foot; would we not follow the gynecological practice of nice, clean, exhaustive, and effective removal of everything possible in the neighbourhood, because of future septic possibilities? By no means. Instead of spending an hour digging around the peritoneal cavity, making peritoneal toilets, we can make an incision, drain, get a scar, and save a function. An incision through the vagina into a pus cavity does sometimes leave a troublesome sinus—especially if such pus cavity be a fallopian tube—and sometimes does not reach trouble further up. And both of the conditions may require a later abdominal section to clear up. But the brilliant results in most cases—some done without ether—compared with the mortality and post-operative condition in patients after radical operations, make it worth while to consider this mode of weeding out the unnecessary radical operations. The man who disregards the importance of function confesses ignorance of psychology, and has not frankly admitted to himself the post-operative condition of his patients. Yet I have known patients to be absolutely implored and threatened for permission to do the radical operation, who have been made perfectly comfortable by vaginal puncture without ether.

Salpingo-oöphoritis; Enlarged and Tender Ovaries and Fallopian Tubes; Cystic Ovaries, etc.—In the evolution of gynecology, many cases of passive congestion and muscular debility have been treated by ovariectomy, and have been helped by the operation. Patients of this class have consulted gynecologists month after month for a pelvic soreness which "treatment" only temporarily assuages, and finally in discouragement have consented to "have something done"—the something meaning an abdominal section.

In a paper on "The Feminine Element in General Medicine," the writer has treated of this neglected subject of passive congestion of the pelvic and abdominal organs. It comprises a congestion—almost an erectile condition—of ovaries, tubes, rectal veins, liver, kidneys, and spleen, and the soreness it brings is entirely analogous with the pain in the breasts near the menstrual epoch. Some women have breasts as sore as boils at these periods—yet breasts have not been made the subject of operative furor on this account. This pelvic condition goes to form the diagnosis of "salpingo-oöphoritis." Most of the benefit from the operations for this condition is derived from "the rest in bed, the special care given an invalid after operation, and the mysterious change in nutrition that follows the use of the knife or curette." We can modify this disordered condition of circulation without the use of the knife, and bring tonicity to these dilated and aching veins. And when a surgeon laughs incredulously at thus modifying veins, ask how surgeons succeed in modifying such stubborn tissue as bone by extension apparatus, and in orthopedic work like the relief of spinal curvature.

The Debateable Operations.—These light and debateable operations give the fancy statistics. They are so easy to do. They fascinate. They flatter a man with the idea that he is a skilful surgeon—more skilful than one who

does heavier work and gets a larger mortality. There are also the cases that have given ground for reaction against operations that may cost some lives. In allowing one's mind to drop into a conservative attitude toward surgery, one must see to it that it is only toward those cases in the debateable list. This list is small and easily grasped. It is trifling with life and health to defer any of the other operations of gynaecology when demanded.

The tentative paths, tried and abandoned by the pioneers in our new science, are not to their discredit. But for them the straight road would not appear so plainly on the chart. All honour, then, to the brave men who have built up in our own time an almost perfect science of diseases of women!

(We strongly recommend the careful study of this excellent practical paper to our readers.—Ed. I. M. R.)

BACTERIOLOGY OF PLAGUE.

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HISTORY.

VIRCHOW, in 1879, reasoning from analogy, predicted that as plague never arises spontaneously in a locality where it has not previously existed, the disease would prove to be one of microbic origin. In the same year HIRSCH and SOMMERBRODT observed in the blood of patients suffering from plague elongated refractile granules, usually arranged in pairs. These bodies may or may not have been plague bacilli; at any rate, these observers failed to attach any importance to them from the etiological standpoint. With the outbreak of plague in Hong-Kong in 1894, independent Commissions were sent by the Japanese and French Governments respectively to investigate the disease. The former was under the direction of KITASATO and AOYAMA, and the latter under the direction of YERSIN. KITASATO almost at once succeeded in determining the constant presence of a characteristic bacillus in the buboes, blood, and organs of patients suffering from the disease. His colleague confirmed the discovery. Subsequently YERSIN, working independently, found the organism, and although the cultural characters and staining affinities which he described for his bacillus did not agree with those published by KITASATO, there is no doubt that they were both dealing with the same bacillus. There have been since 1896, unfortunately, only too many opportunities in India and elsewhere for confirming KITASATO's discovery.

GENERAL CHARACTERS OF THE BACILLUS.

The micro-organism resembles somewhat closely the bacillus of chicken cholera. It is a small bacillus, measuring from 1 to 2 in length, and from 0.3 to 0.5 in width. Larger forms are often met with, which may measure as much as 4 or 5. It possesses rounded ends, giving it an oval appearance. It is usually regarded as being non-motile. KITASATO, however, states that if it be examined in media kept at a temperature of 37°C., it can then be observed to be actively motile. GORDON has also described the presence of one to two terminal spiral flagella. In cover-glass preparations made from blood and sputum it is frequently seen to be arranged in pairs. In fresh broth cultures it

tends to form streptococcus-like chains made up of from five to six short bacilli. These chains are sometimes observed in the sputum. Involution forms are frequently met with; these occur generally when the bacilli are existing under unfavourable conditions—for example, when they are present as a mixed infection in buboes, or in old broth or agar-agar cultures. They may be thickened, pear-shaped, or spindle-shaped. HAWKIN found that these forms appeared in an agar-agar culture to which 2.5 per cent. to 3.5 per cent. of salt had been added, and he regards this as a point of some diagnostic value. The plague bacillus does not form spores, and it has no true capsule, although in some stained specimens an appearance suggesting encapsulation is present. It is a facultative anaerobe.

STAINING AFFINITIES.

It stains readily with the ordinary aniline dyes, but is decolorised by GRAM's method. In cover-glass preparations made from buboes, blood or organs, the bacillus stains more intensely at the ends, giving rise to a bipolar appearance. Laboratory cultures may exhibit this feature, but they do not always do so. Good routine stains are weak carbol fuchsin (one in four), LOEFFLER's blue, and weak gentian violet. The bipolar appearance can be generally best brought out by overstaining with strong carbol fuchsin for four or five minutes, and then carefully decolorising in absolute alcohol. The plague bacillus shows a great affinity for the thionin group of stains, such as carbol thionin and toluidin blue, and these are excellent for staining blood and sections of organs and glands.

CULTURAL CHARACTERS.

The micro-organism grows well on the ordinary media, including blood serum, gelatine, agar-agar, glycerine, agar, and broth. Agar-agar and broth are those usually employed, especially in the tropics, where gelatine is unmanageable. It grows well at 37°C., but also equally well at 25°C. to 30°C., so that in a hot climate an incubator may often be dispensed with. On blood serum it grows rapidly, and in from twenty-four to forty-eight hours a slightly elevated, moist, cream-coloured growth appears. In gelatine it forms an opaque white growth with irregular margins. The growth tends to be limited to the needle track; it causes no liquefaction of gelatine. On agar-agar, or better on glycerine agar, it grows readily, forming an abundant, moist, shining, cream-coloured growth, presenting a markedly crenated appearance. If touched with a platinum needle, it is found to be smooth and sticky, and freely moveable on the subjacent culture medium. If carefully dried slanting agar cultures be inoculated, by spreading the culture material evenly over the surface, a somewhat characteristic growth appears. The surface becomes closely covered with minute translucent colonies, and if viewed from behind, the whole presents the appearance of ground glass. The agar-agar tubes may be dried in a desiccator, but preferably in an incubator, for one or two weeks until all the water of condensation has disappeared.

In ordinary bouillon it gives rise at first to a general turbidity. This rapidly clears, with the formation of a fine flocculent deposit on the bottom and sides of the tubes.

HAFFKINE'S STALACTITE GROWTHS.

HAFFKINE has discovered a highly characteristic appearance in bouillon cultures under certain conditions which, so far as is known at present, is peculiar to the plague bacillus. He found that if broth cultures, preferably those to which a small amount of fat has been added, be kept absolutely still and free from any vibrations, a growth appears on the surface of the broth, which spreads down into the media in the form of long stalactites. HAFFKINE uses an ordinary narrow-mouthed flask half filled with neutral or faintly alkaline peptone broth, to which a little coconut or olive oil or ghee (clarified butter) has been added. After sterilising, it is infected and placed in an incubator reserved for the purpose. In India the ordinary room temperature suffices. In twelve hours' time a diffuse cloudiness appears, and this is gradually replaced by the formation of the stalactite growth which hangs from the surface, and may reach to the bottom of the flask. If it be shaken, the stalactites fall to the bottom, giving rise to the so-called "snowflake" appearance. If the flask be incubated again, the stalactites reform. The characteristic growth can be best observed by placing it in the dark and holding a light behind it.

The micro-organism grows on potato, but not characteristically. It forms a small amount of acid in sugar-agar, and causes coagulation of milk in about two weeks (KLEIN).

ANIMAL EXPERIMENTS.

Apes and rodents, including rats, mice, guinea-pigs, marmosets, and bandicoots, are all highly susceptible to inoculation of the plague bacillus, and most of these animals have been observed to suffer from the disease under natural conditions. Sheep, goats, cows, and horses are susceptible to a slight degree; dogs and cats react very slightly; birds, and also swine, are refractory to repeated inoculations. A rat or guinea-pig, which has been inoculated with plague material, shows within one to three days—usually on the first day—evidence of toxic poisoning; it refuses food, its coat loses its gloss, respirations become hurried, and the animal in many cases staggers or shows weakness in the hind quarters, and finally rolls on its side and eventually dies, either with or without the occurrence of convulsions. On *post-mortem* examination, inflammatory oedema is usually found at the site of inoculation; there is marked congestion of the spleen, liver, and lungs, and these organs frequently show scattered hæmorrhagic patches. The spleen and liver are enlarged. The glands also are enlarged, but not as a rule, to a striking degree. The bacilli are present in large numbers in the spleen, liver, and blood.

EVIDENCE THAT THE BACILLUS CAUSES THE DISEASE.

That the micro-organism which has been described is the causative agent of plague is at the present time undisputed. Proof rests on the following facts. The bacillus is constantly present in the body of an individual suffering from the disease. If from this individual material be taken which is found to contain the characteristic bacillus, and be inoculated into a susceptible animal, the animal sickens and dies, and the micro-organism can be obtained from its spleen and other organs. The bacilli thus obtained will in their turn prove

to be fatal to other susceptible animals. Several striking examples have been quoted by CLEMON, from India, tending to show that man and rat infect one another under natural conditions. As, however, his observations were made in districts where plague was raging at the time, they cannot be accepted unreservedly.

Accounts of successful direct inoculation experiments from man to man are also on record. Thus, in 1802, Dr. WHYTE infected himself with plague material and died of the disease; in 1835, in Cairo, two condemned criminals were inoculated with blood obtained from an individual suffering from the plague; they both contracted the disease, but recovered. The same objections, however, apply to these experiments as have been already raised against CLEMON'S observations. The outbreak in the laboratory in Vienna (1898) is, however, more conclusive. The attendant who had charge of animals inoculated with plague contracted the pneumonic form of the disease and died, the bacilli being present in his sputum. The two nurses who attended this man contracted the disease as well as Dr. MULLER; the latter died.

THE EFFECTS OF HEAT, DRYING, DISINFECTANTS, ETC., ON THE BACILLUS.

The plague bacillus does not, speaking generally, possess high powers of resistance outside its vertebrate hosts. Thus, it is readily killed by direct sunlight, by disinfectants, and by rapid drying at a high temperature. To slow drying, at a low temperature, it is more resistant. The micro-organism is, therefore, more readily killed in a hot, dry climate than in a damp, temperate one. Pure cultures which are protected from light and drying may retain their vitality for months. It is extremely resistant to cold, and cultures which have been exposed to a temperature below freezing point have been found to be alive after four months. Laboratory cultures soon lose their virulence, but by passing them through susceptible animals it can generally be restored.

The German Commission gives the following results of experiments relating to the vitality of the bacillus outside the body. Their figures do not agree in every instance with those in the reports of other Commissions, but it is probable that varying conditions of climate and technique may account for some of the differences:—

A thin layer of culture material spread on a cover-glass and exposed to direct sunlight	
is killed	... in 1 hour.
Cultures heated to 70° C.	... in 10 minutes.
" " 80° C.	... in 5 "
Cultures treated with corrosive sublimate (1 in 1,000)	... at once.
Cultures treated with carbolic acid (1 per cent.)	... in 10 minutes.
Cultures treated with carbolic acid (2½ to 5 per cent.)	... in 1 minute.
Cultures treated with lysol (1 per cent.)	... in 5 minutes.
Cultures treated with chloride of lime (1 per cent.)	... in 15 "
Cultures treated with quicklime (1 percent.)	... in 30 "
Cultures treated with sulphuric acid (1 in 2,000)	... in 5 "
Cultures treated with hydrochloric acid (1 in 1,000)	... in 80 "
Pieces of organs, dirt, dressings, etc., infected with plague bacilli (in India)	... in 8 days.
Ditto (in Germany)	... in 14 "
The bacilli in urine and faeces	... in 5 "
" sputum	... in 10-15 days.
" tap water	... in 5 days.
" sterilised water	... in 10 "

MODE OF COMMUNICATION.

Inasmuch as the micro-organism does not produce spores, and possesses such low powers of resistance outside the body, it is improbable that infection takes place to any great extent directly through the air; it must under ordinary circumstances take place by close contact. The micro-organism may gain entrance to the body by any or all of the following ways:—

1. By the skin or mucous membrane.
2. By the respiratory tract.
3. By the gastro-intestinal canal.

1. *By the Skin.*

This is the commonest way, and probably the only one, in bubonic cases. Infection may take place through wounds, scratches, or insect bites. The Austrian Commission states that it succeeded in infecting a rat by rubbing a virulent culture into the intact skin. The following insects are possible agents in carrying the disease: flies, fleas, bugs, ants, and mosquitos. YERSIN noticed that flies died in his laboratory in Hong-Kong, and he succeeded in inoculating a guinea-pig from a culture obtained from an infected fly. NUTTALL subsequently fully confirmed this observation. Similar experiments have been performed on ants and bugs by HANKIN and NUTTALL respectively. SIMOND has done a considerable amount of experimental work with the fleas of rats, which points to the possibility that these insects are frequently carriers of the disease to man.

2. *By the Respiratory Tract.*

It has been already stated that under ordinary conditions the plague bacillus does not exist in the air, but it is possible that in densely crowded, close dwellings the disease may be contracted by aerial infection. More frequently, however, the bacillus gains entrance to the respiratory tract by inhalation from contact with infected dressings, discharges, etc., as, for example, from an infected person sneezing or coughing in the face of a healthy individual. Experiments have proved that rats may become infected by rubbing virulent cultures on the nasal mucous membrane.

3. *By the Gastro-intestinal Canal.*

Some observers believe the disease may be contracted from infected food or water, and they regard the buboes as secondary manifestations. In favour of this theory is the fact that the bacilli are frequently to be found in large numbers in the intestines of animals fed on plague organs or on infected grain. The plague bacillus has also been isolated from water obtained from a well near a plague-infected dwelling. On the whole, however, it is unlikely that this is the way in which infection usually takes place. The Austrian Commission is inclined to believe that infection takes place sometimes through the tonsils. This may be so in those cases in which the cervical glands are those first affected.

BACTERIOLOGICAL DIAGNOSIS.

In the bacteriological examination of a suspected case of plague, the method of investigation differs according to whether it be one of the bubonic, pneumonic, or septicæmic type. In the bubonic form the bacillus must be looked for in the buboes; in the pneumonic form in the sputum; and in the septicæmic form in the blood.

Method of Obtaining Material.

When dealing with sporadic cases, or at the onset of an epidemic, the bacteriological examination requires to be undertaken with care and systematically. During an epidemic, however, a provisional diagnosis can often be made by simple examination of cover-glass preparations made from the gland, sputum, or blood, as the case may be. In bubonic cases of ordinary severity the inflammation is very acute, usually of a hæmorrhagic character, with marked exudation and infiltration into and around the affected gland. In these cases a sterilised antitoxin syringe should be plunged into the gland when a sufficient quantity of fluid can be readily

obtained. In mild cases, where the inflammation is more chronic and softening of the affected gland often absent, it is preferable to make a small incision (with aseptic precautions) and remove a small piece of the gland, which is placed in a sterilised tube for subsequent examination.

In pneumonic cases the sputum should be collected in the ordinary way, and not mixed with any antiseptic material.

In septicæmic cases it is best, in order to exclude the possibility of skin contamination, to remove a sufficient quantity of blood directly from a vein by means of an aseptic hypodermic syringe. It is good practice to examine the blood in all cases of plague.

Microscopical Examination of Material.

The infective material obtained from one of the above-mentioned sources should be dealt with in the following way. Two cover-glass preparations should be made, and one stained with an ordinary aniline dye, such as weak carbol fuchsin, and the other by GRAM'S method. The presence of short bacilli, exhibiting bipolar staining and tending to arrange themselves in pairs, or short chains, and which are decolorised by GRAM'S method, is highly suggestive. Negative evidence, however, is of less value, and should never be relied upon in auspicious cases. In buboes which have suppurated, the bacilli may be absent or scanty. In cases of pestis minor the affected glands may contain very few bacilli. I have observed a case of this description recently in England. It must not be forgotten that the plague bacillus frequently occurs as a mixed infection, generally being associated with staphylococci and streptococci. These, however, stain by GRAM'S method. In sputum it may be mistaken for the diplococcus pneumoniae; but this also stains by GRAM'S method, and appropriate staining reveals the presence of a distinct capsule.

In blood examination I find it best to make the preparations on slides. The bacilli are usually present in very small numbers in the peripheral blood, and a larger amount of blood can be reviewed more rapidly than if a cover-glass preparation be employed.

Cultivation.

In mixed infections endeavours should be made to isolate the bacillus from plate colonies or by employing HAFKINE'S salt medium.

Ordinary broth and agar-agar cultures should be made, and their characters studied both macroscopically and microscopically. HAFKINE'S staccite growth should also be tried. Guinea-pigs should be infected, and if they die the *post-mortem* appearance of their organs, etc., noted, and the micro-organisms should be isolated from their spleens.

It will sometimes be necessary to make sections of organs and glands in suspected cases. It will generally be found preferable to embed the latter in celloidin.

Blood Serum Reaction.

The diluted blood serum obtained from a case of plague is said to cause clumping with plague bacilli. Hitherto this has not proved of practical value. The reaction can usually only be obtained late in the disease, and even then it is not always present.

The Bacillus is Non-pyogenic.

The plague bacillus may, I think, be best regarded as belonging to the septicæmic group of pathogenic micro-organisms, that is, one which is present in the blood, and may cause toxæmia or death without local manifestations. It is parallel in some respects with the anthrax bacillus. In plague, however, if local signs are present, they occur in the lymphatic glands, whereas in anthrax infections local signs manifest themselves chiefly at the actual site of inoculation. The plague bacillus does not produce pus, but it can cause necrosis of tissue. Buboes which contain the bacillus as a pure infection may resolve or slough. If they suppurate, it is generally due to staphylococcal and streptococcal infection.

A MIRROR OF PRACTICE.

ABNORMAL CRANIAL SUTURES.

By MILITARY ASSISTANT SURGEON J. T. PARKINSON,
Civil Surgeon, Sultanpur, Oudh.

THE frontal bone, as is well known, is developed from two centres of ossification, and at birth is made up of two lateral halves. After a few years the suture between the two pieces, in almost every case, becomes obliterated, leaving no trace of the pre-existent division, the bone being now one piece. In some cases, however, a remnant of the frontal suture remains, but here only at its lowest part above the nasal spine. In very rare cases, again, it is said that the frontal suture has been known to persist through life, extending from the vertex to the root of the nose. The last condition, I venture to say, must be extremely rare, as up to the present time I had not met with such a deviation from the ordinary or normal disposition of the cranial sutures, and this notwithstanding, having performed for many years a very large number of autopsies.

On the 8th June 1900, when making a *post-mortem* examination of the body of a native female, age 50 years, I was at once struck with the peculiar disposition of the cranial sutures at the vertex of the skull. The inter-parietal or sagittal suture was seen to continue onwards through the frontal bone, distinctly dividing this bone into two lateral and equal halves by a well-marked frontal suture extending from the bregma to the root of the nose. This frontal suture was perfectly dentated the whole way through, and in appearance looked exactly like the sagittal suture as regards the formation and contour of its dentations. I attach an actual size diagram of the specimen made by a local draughtsman, which shows exactly the condition described, and in which the frontal suture is marked A.

I now come to the second peculiarity, which of course is not so uncommon as that described. In the LAMBDON suture a large Wormian bone is developed on the right side. In the diagram it is marked B. This supplementary bone appears to have supplanted a large portion of the right parietal bone posteriorly, and a small part of the occipital. It measures in its greatest length $1\frac{3}{4}$ inches, and in width $1\frac{1}{4}$ inches. In the diagram it looks smaller than it actually is, owing to the illustration showing it as it appears, looking from above.

Remarks.—There are a few points of interest in connection with the above unique example of irregularities worthy of note—

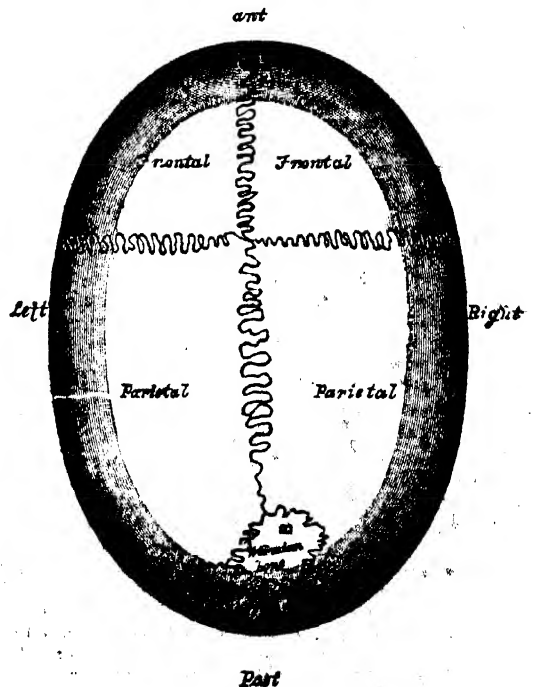
(a) The extremity of a perfect and complete frontal suture in the adult.

(b) The large size of the WORMIAN bone which was found only on one side of the head, and occurring as it did in conjunction with a perfect frontal suture in the same subject.

(c) The last, but chief, point of interest is from a medico-legal point of view, such as might arise, for instance, in cases of injuries to the head.

Given a case of scalp wound from direct violence, it would be possible, were such a wound located over an irregularly placed suture, to wrongly diagnose a fracture of the skull, by the probe or finger impinging on such a suture. Of course an exploratory incision would remove all possibility of error in such a case; but, on the other hand, surgical interference might not, and most probably would not, be called for. Under these circumstances, losing sight of the possibility of sutures being found other than in recognised localities might lead to errors in diagnosis. The consequences of such an error to an accused person might prove very serious to him in a court of law, as the Indian Penal Code makes the fracture of a bone "grievous hurt," whereas a scalp wound, uncomplicated, would come under the heading of "simple hurt." In normally placed sutures of course the above contingency would not be likely to occur.

In the case reported on the irregular sutures were found in the frontal and occipital regions—localities wherein scalp wounds from the *lathi* are very common in this district, as also are head injuries from the same weapon.



A CASE OF PLAGUE WITH MULTIPLE BUBOES: RECOVERY.

BY COOVERJI RUSTOMJI AVARI, C.M.S.,

Hospital Assistant, Railway Medical Inspection Duty,
Dhond.

BHIKI ROWJI, a girl, aged 7 years, travelling from Poona, was detained at 7-30 P.M. on the 28th October last at the Dhond Plague Camp on account of fever.

Condition.—Temperature 102°: no buboes: staggering gait: an indefinable fear and timidity: sordes on teeth and lips: tongue furred thickly brown: bowels not moved for two days.

Treatment.—In consultation with Assistant Surgeon J. KNOX THOMAS, two grains of calomel with an equal quantity of sodii bicarb were given, immediately followed at 10-30 P.M. by a soap and water enema, which produced a copious stool: temperature at that hour 104.4: four buboes now developed—one in each axilla, and one on either side of neck: those in axillæ were treated with belladonna and glycerine, and those on the neck with equal parts of tincture and liniment iodi: the following mixture—

Liq. Ammon. Acet.	...	...	℥iv.
Spt. Etheris Nit.	...	...	℥i.
Spt. Ammon. Arom.	...	...	℥ 40.
Tinct. Nucis Vom.	...	...	℥ss.
Tinct. Digitalis.	...	...	℥ss.
Rum	...	...	℥vi.
Aquæ	...	...	ad ℥iv.

one-eighth part every two hours was prescribed, and absolute rest and quiet insisted on.

27th October.—Unconscious, restless, with low muttering delirium: pulse intermittent: temperature 104.6: all four buboes well defined and very tender and painful.

Treatment.—Two minims each of liq. strychnia and tinct. digitalis with 20 minims of rum given hypodermically, after which pulse improved slightly: this was repeated in an hour: fomentations ordered to buboes, and rest of treatment continued.

9 p.m.—Temperature 102.6: vomiting and pains in abdomen relieved by two mustard plasters at an interval of an hour: owing to inability to swallow on account of weakness, nutrient enemata ordered: condition very prostrate.

28th October.—Two more buboes, one in each groin, developed: temperature 105°: pulse intermittent and flickering. Strychnine, digitalis and rum hypodermically injected and repeated, first in half an hour, and then at increasing intervals for six times. In the evening,

after anaesthetising the parts with cocaine, 15 minims of liquor hydrarg. perchloridi were injected about half an inch below each of the groin buboes, and one-eighth gr. of morphia injected hypodermically at bed-time produced good sleep.

29th October: 4-30 a.m.—Temperature 104.4: very prostrate: cold sponging all over body and liniment iodi over all the buboes.

9 a.m.—Temperature 101.6: buboes in axillæ attained large size: antiseptic poultices applied every hour: other treatment continued: in the evening patient appeared brighter, and for the next two days the temperature kept below to 102.2.

1st November.—Temperature 101.4: mind clearer and every way now a hopeful case: owing to folly of father raising her from the bed, the little patient fainted and nearly succumbed: being close at hand at the moment, hypodermic injections as before with mustard plaster over the cardiac region restored her. The groin and neck buboes seemed now to be subsiding, but the temperature in the evening rose to 102.4: morphia given hypodermically to procure sleep.

2nd November.—Axillæ buboes found fluctuating, and after repeated poulticing were opened on the following morning with all aseptic precautions, yielding 6 ounces of pus each: dressings—iodoform and boric acid: temperature fell to 100.4.

4th November.—Temperature 100°: two large cavities in each axillæ washed out with lotio hydrarg. perchloride (1 in 800) and dressed again with iodoform and boric acid.

6th November.—Temperature normal: diaphoretica stopped, and the following mixture given for four days:—

Quin. Sulph	...	...	grs. 20.
Acid. Nitro-muriatic Dil	...	...	℥ 30.
Liq. Strychnia	...	...	℥ 15.
Tinct. Digitalis	...	...	℥ 20.
Syrup	...	...	℥iv.
Aquæ	...	...	℥iv.

One-eighth part thrice daily after meals: diet—milk, mutton broth, eggs and occasionally stimulants. After this improvement was rapid. A tonic of iron, quinine, strychnine and nitro-muriatic acid was then prescribed, and the little patient discharged on the 26th November, the neck and groin buboes having subsided.

Pleurisy.

DROPSY—that is to say, anasarca and ascites—sometimes occurs even in acute pleurisy with effusion on one side only, there being no sign of nephritis or of disease of the heart, and the patient recovering completely in about three months. In such cases the dropsy must be due to stagnation of the blood in the right side of the heart.—Dr. GEE, Allbutt's "System of Medicine."—*New York Med. Rec.*

Indian Medical Record.

2nd January 1901.

THE SEVENTH ANNUAL GENERAL MEETING OF THE INDIAN MEDICAL ASSOCIATION.

In accordance with the notification duly given in the *Indian Medical Record* of the 26th December 1900, the Seventh Annual General Meeting of the Indian Medical Association was held at the Office and Library of the Association, 50, Park Street, Calcutta, on Friday, the 28th December 1900, at 6 P. M., when there was a fair attendance of members and visitors.

Telegrams from the representatives of the Association in various parts of the country were received, in which the Council was congratulated upon its labours, and earnest wishes were expressed for a prosperous new year. Dr. Lal Madhab Mookerjee, Rai Bahadur, President of the Association, was voted to the Chair.

After a few words of welcome to those present, he called upon the Secretary to read the—

SEVENTH ANNUAL REPORT OF THE INDIAN MEDICAL ASSOCIATION.

The Secretary has the honor to submit the following report of the affairs of the Indian Medical Association for the year 1900 :—

Membership.—While there has been no withdrawal from our Society, death has claimed three of our number during the year 1900.

It is gratifying to note that the list of members has been augmented during the year, and may be classified as follows :—

	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Army Surgeons ...	2	14	57	55	58	58	58
Independent Physicians ...	71	105	123	157	160	163	167
Civil Surgeons ...	72	94	102	111	124	128	128
Civil Assistant Surgeons ...	79	95	122	135	155	166	170
Military Assistant Surgeons ...	173	194	260	318	328	333	336
Hospital Assistants	49	85	87	132	326	339	342
Total	446	587	751	908	1,151	1,187	1,201

THE COUNCIL AND ITS WORK.

OFFICERS AND COUNCIL.

President:—Lal Madhab Mookerjee, Rai Bahadur, L.M.S., F.C.U., Principal, Calcutta Medical School.

Vice-Presidents:—(1) H. H. Sir Bhagvat Sinha, G.C.I.E., M.D., C.M., F.R.C.P., Edin., LL.D., D.C.L., Edin., Thakore Sahib of Gondal, Kathiawar. (2) E. W. Chambers, L.M.S., Cal., L.S.A., London.

Members of Council.—Representing Bengal and resident in Calcutta (4 members) :—

1. H. W. Jones, M.D., M.R.C.S., Eng.
2. J. E. Panioty, L.R.C.P. and S., Edin.
3. R. G. Kar, L.R.C.P. and S., Edin.
4. Rakhal Das Ghose, L.M.S.

Representing—

5. *Bombay.*—Alfred McCabe Dallas, L.M., Dub., L.R.C.P.I.
 6. *Madras.*—C. G. B. Naylor, M.R.C.S., L.R.C.P., Lond.
 7. *Central Provinces.*—Mirza Kerim Khan, M.B., C.M., Edin., Hyderabad.
 8. *Punjab.*—Professor C. C. Caleb, M.B., M.S., Durh., Lahore.
 9. *N.-W. P. and Oudh.*—John Morton, M.D., L.R.C.P., L.R.C.S., Edin., Mussoorie.
 10. *Burma.*—N. N. Parakh, L.S.A., Lond., L.F.P.S., Glas.
 11. *Independent Native States.*—A Mitra, Rai Bahadur, L.R.C.P., L.R.C.S., Edin., Kashmir.
 12. *Assam and Duars.*—Wm. Brown, M.B., C.M., Glas., Julpauri.
 13. *Representative of Military Assistant Surgeons' Service.*—Surgeon-Major James Forsyth, S. A. S., H. E. The Viceroy's Staff, Simla.
 14. *Representative of Civil Assistant Surgeons' Service.*—Hari Datt Pant, L.M.S., Lucknow.
 15. *Representative of Hospital Assistants' Service.*—I. M. Philip, C.M.S., Madras.
 16. *Representatives in London.*—Dr. J. E. Cooney, L.R.C.P. and S., Edin., D.F.H., Camb., Barrister-at-Law.
 17. and Dr. S. Mullick, M.B., Edin.
- Treasurer and Assistant Secretary.**—C. Deefholts.
- Secretary.**—James R. Wallace, M.D., F.R.C.S., Editor, *Indian Medical Record*, Calcutta.
- Solicitors.**—Messrs. Leslie and Hinde, High Court, Calcutta.

Bankers.—Messrs. Grindlay & Co., Calcutta.

Two members of Council, Drs. Anderson and Sirkar, resigned since last annual report, and in their places were elected Drs. Panioty and Kar respectively.

Meetings of the Council.—The Council held three meetings during the year. Six others were called, but failed for want of a quorum.

Work of Council.—The three recorded meetings were well attended. Much of the time at each meeting was occupied with the developing of the Association Provident Fund, as the reports in the appendix plainly prove. The question of Indian medical college appointments has been forcibly brought to public attention in England by our Journal and by our representative in London (Dr. S. Mullick), who has succeeded in inducing the British Medical Association to appoint a Committee to enquire into the subject. The question of appointing civil medical practitioners in Calcutta to the Native Mayo Hospital has been taken up by the Council, and it is hoped that a favorable issue may result therefrom. The Council has also moved the Government for the opening of a professorship in Throat and Ear Diseases in the Calcutta Medical College. Several instances of individual grievances among members of the Association have been represented to Government, in three of which satisfactory results have been obtained.

It only remains to invite all members of the Association to exercise their best endeavours to promote the growth of the Association by further additions to its membership, for by unity alone can strength and progress result.

TREASURER'S REPORT.

Indian Medical Association Account for 1900.

	Rs.	As.	P.		Rs.	As.	P.
To, Balance in Bank on 1st July 1900 ...	1,461	12	6	By amount expended by Bank for postage, &c. ...	5	0	0
Subscriptions from August to 28th December 1900 ...	600	0	0	Post-cards ...	1	4	0
	2,061	12	6	Mr. C. Deafholts for clerical work during the year	100	0	0
					106	4	0
				By Balance ...	1,955	8	6
					2,061	12	6

PROVIDENT FUND.

	Rs.	As.	P.		Rs.	As.	P.
To, Balance in Bank on 1st July 1900 ...	401	3	0	By amount expended by Bank	4	8	0
To Subscriptions from August to 28th December 1900 ...	225	0	0	Balance	5,821	0	5
To amount received from W. M. O. Provident Fund ...	5,199	5	5		5,825	8	5
	5,825	8	5				

PRESIDENT'S SPEECH.

AT the close of the above Report, the President addressed the meeting as follows:—

LADIES AND GENTLEMEN—

It is a great pleasure to me to preside at this annual meeting of our members. Our Association is now seven years old, and it is with some degree of pride and satisfaction that I acknowledge the honor of having presided at seven of the annual meetings, and to have taken an active part in all the deliberations of the Council of our Association since its inauguration in 1894. I think we may congratulate ourselves as a Society on two important points—one is our steady growth, and the other is the activity and the scope of our operations. No task for the improvement of the local medical profession has been considered too great, nor has any interest, no matter how trifling in its concern for the humblest member of our Association, escaped our attention. It is a source of gratification, therefore, to be able to say that the governing body of our Society have, each and all of them, done their duty right manfully and well. Our Secretary, in his report for the year that is now closing, has briefly sketched the nature of our work during the past twelve-month. We are all busy men on the Council, each one burdened with his professional and domestic cares, yet we have found time for carrying on the labors of the Council, and I think it will be admitted that the efforts of the past seven years have been attended with a fair measure of success all along the line. My purpose this evening is to point out the means by which a still larger measure of success and prosperity will attend not only our members individually, but enhance the status of our profession and of our Association. We need to add numerically to the membership of our Association, and we require also to enhance the status of our members. In a country like India, the profession of medicine has much to hinder its progress and to retard its growth and use-

fulness. It is no exaggeration to say that our universities have turned out upon the public at least 20,000 fully qualified medical practitioners, while the smaller medical schools have probably doubled this outturn with a lower grade of practitioners, so that we have from fifty to sixty thousand qualified men in India, of two distinct grades. In this great city alone, we have at least four to five thousand practitioners of these different grades. Considering these vast numbers, does it not seem disparaging that the important work of this Association has not attracted more sympathisers and more active supporters to its standard? Does it not betray a discreditable apathy on the part of the local medical profession, when it is found that our Association has not yet completed a membership roll of 2,000? It has been suggested that we should employ canvassing agents touring the country in order to win them into our fold. Of course we cannot do this. Great publicity is given to our cause by the weekly publication of the *Indian Medical Record*, which now has a circulation of 2,000 copies all over the Indian Empire. Surely such publicity ought to suffice to attract even the most callous and the most apathetic. In this matter of increasing the popularity of our Association, each member has a distinct duty to perform, and were this done cheerfully and persistently during the coming year, we could more than double our membership in a twelve-month. An incident during this year's experience should bring this duty of increasing our membership very prominently and pointedly to the hearts and minds of Military and Civil Assistant Surgeons and Military and Civil Hospital Assistants. It will be remembered that recently, when the Council desired to approach the Government of India with a memorial regarding the grievances and disabilities of Military Assistant Surgeons, it was found that this could not be done, unless two-thirds of their body were members of the Association. We gave them a very clear hint at the time that more of them should join us, but this invitation has up to the present met only with a very faint-hearted

response. We want at least 300 more Military Assistant Surgeons, 200 Civil Assistant Surgeons, 200 Military Hospital Assistants, and 200 Civil Hospital Assistants to enter the Association before any of these services will possess the privilege of holding a representative position towards Government.

The Council, you may be sure, is not only quite able to voice the needs of each of these services, but it is quite willing to be their mouthpiece and representative. Yet you see now that a certain legal barrier has been placed in the way, and we cannot approach the Government unless a service has two-thirds of the strength of its membership on our rolls. The removal of this barrier lies in your own hands, and it remains for you to render the Association both active and powerful by becoming its supporters and adherents.

The next matter that demands our serious attention is the improvement of the status of the local profession. There must be ambition to rise in our sphere of life, and to acquit ourselves honorably in that sphere in which God has placed us. Let each member of our profession, rich or poor, reckon the honor of our common profession as being very dear to him. Let each be filled with noble aspirations, adopting every legitimate means not only to improve the mind by education and wide study, but in attaining the many high honors and distinctions that are open to medical men. The Universities and Corporations of Great Britain and Ireland, as also those of the Continents of Europe and America, offer degrees and qualifications of the highest value and repute. Recently a nefarious trade in bogus and discreditable American diplomas, base and worthless, has sprung up in India, and many of the lower orders of our brethren have taken advantage of this dishonoring traffic, and have bought for money high-sounding, but false and worthless, titles. Their transactions are not only fraudulent, but criminal, and it is to be hoped that complete exposure and punishment awaits them all. I believe in the Biblical injunction, which says that "man shall eat bread by the sweat of his brow." We readily honor talent and industry, for the noble insignia of science cannot be purchased with dross. Nothing would raise the status of our Association more than the possession by its members of the higher degrees and honors obtainable by diligence and perseverance, in this land and in other lands. It is a notable, but regrettable, fact that graduates of Indian Universities do not aspire to the degree of M. D. which our Universities are willing enough to give them, if they will work up for it. They seem to be perfectly satisfied with the lesser degrees of L. M. S. and M. B. I, for one, do not consider the M. D. degree of an Indian University less difficult to obtain than the same degree of a British University. An Indian M. D. is indeed a very high distinction, and it would greatly enhance the status of the local profession were the possessors of this degree more common than they are at present. It is a far easier matter to obtain the diplomas of the British Corporations than it is to obtain the lesser Indian degrees. Yet the former possess a higher value, simply because they are British. I would be glad to see the status of our brethren of the Hospital Assistant class improved. They now undergo a very fair curriculum of four years' medical study, and I think they ought to be

provided with a distinct diploma. This step would be a source of gratification to them, and it would cost the Government nothing to grant the favour. You will remember that a little while ago the Council approached the Government of India on the subject of systematising the medical studies and the diplomas granted to the various grades of practitioners who pass through our colleges and schools. It is quite possible that some day this important matter may find some Director-General of the I. M. S. sufficiently interested in the subject to place it on an equitable basis. We anticipated much help in this matter from Surgeon-General Robert Harvey, C.B., the present Director-General, and it is possible that something may yet be done before he gives up the reins of his important and difficult office.

I thank you Ladies and Gentlemen heartily for your kind attention to my brief address, and I trust that each and all of us will do our part in advancing the highest and best interests of our Association and of our profession. I take this opportunity also of thanking my colleagues in the Council for their valuable help at our meetings, and my thanks, and the thanks of all of us, are due to our worthy Secretary, the Editor of the *Indian Medical Record*, for his ever ready co-operation in the advancement of our cause. I now wish you all, most cordially, a bright, happy and prosperous New Year (applause).

The following resolutions were duly proposed, seconded and carried :—

1. *Resolved* that the Annual Report for 1900 as read by the Secretary be adopted.
2. *Resolved* that the Council and the Association accept, with much regret, the resignation by Dr. K. G. SARCAR of his position as Member of Council, and they desire to record their sincere appreciation of, and thankfulness for, Dr. SARCAR's valued labors in the Council.
3. *Resolved* that the vacancy in the Council caused by the retirement of Dr. K. G. SARCAR be filled by Dr. R. G. KAR.

Heartly votes of thanks were given to the Chairman and to the Secretary for their labors.

THE TRAINING OF BODY AND MIND FOR THE PROFESSION OF MEDICINE.

SIR JOHN WILLIAMS, Bart., M. D., F. R. C. P., London, delivered, at the commencement of the winter session of the Faculty of Medicine of the University College of South Wales on October 10th last, an eminently practical address on the training, physical and mental, necessary for success in the ranks of the medical profession. We endeavour an epitomé from a report in the columns of the *British Medical Journal*. The speaker warned the students that the path to success in this profession was in no way a bed of roses. It necessitated a careful preliminary training, hard study, and later hard work. The treatment of the profession and the estimate of its work by the public were often unjust, and this was scarcely to be wondered at, considering the usual education im-

parted in schools and universities. Ignorance prevailed with regard to the very elementary laws which governed man's life and actions. This was the case generally in the upper as well as in the lower classes of society, and ignorance and superstition in respect of medicine, of the power of drugs, and of the skill of medical men, were as prevalent among the educated as amongst the uneducated. Attention was then called to the prevalence of quack medicines supported by quack advertisements in newspapers, which professed to teach and lead the public and to form public opinion—an unwarrantable sanction by silence, or speech, or writing, by all concerned in the publication of such journals. The fact that religious papers were as culpable as secular brought a blush of shame to the cheeks of the speaker, when he remembered under whose aegis they were published. What was the remedy? A more practical education. Let the elements of science, the laws of growth and decay, and the laws regulating the functions of the living body, be taught in the schools, and young men and women would themselves be able to estimate this mephitic rubbish at its proper value. Nevertheless the medical profession was a noble and ennobling one. True, the work was on the dark side of life, but this only enlarged and widened sympathies, whetted wit, and increased one's resources. Dealing with the qualities necessary for success in the profession, the speaker referred particularly: (1) To a sane mind in a healthy body: success in medicine meant survivorship, and survivorship usually meant a good physique, and although health was inherited, much could be done to strengthen a weak constitution, especially during the period of childhood, boyhood and early manhood, by moderate diet and an active out-door life with sufficiency of physical exercise. (2) To training the senses. The training could not be begun too early. All boys should be trained to use their eyes, ears and hands and to acquire manual dexterity. The faculty of observation was one of the chief aids to a medical man, and its cultivation could not be begun too early. In connection with the sense of hearing, singing was taught in most schools; but drawing, with some amount of handicraft, might also be taught with advantage. By training the hands a manual dexterity with a delicate sense of touch capable of appreciating slight vibrations and slight differences of resistance and elasticity were acquired, all of which were of the greatest value to the practitioner in the diagnosis and treatment of disease. Training of the eyes and hands were as essential to a medical man as it was to an artist, and training of the ears and hands, was as necessary to him as it was to a violinist or pianist. On the subject of a classical education as a preparation for professional training, the speaker remarked that it was important that a boy preparing for the study of medicine should receive the best attainable culture and training. The solution of this, made long ago and partially acted upon now, was a classical training. The matter, however, required reconsideration in the altered state of medical knowledge. Sir JOHN had not a word to say against classical scholarship; but there was much to be said upon the question whether a boy preparing for the medical profession should

devote several years to acquire a knowledge—invariably smattering—of such subjects as Latin and Greek. Though the surpassing excellence of ancient literature was indubitable, it could not be denied that in the English, French and German languages there was a sufficiency of good literature to give a high kind of enjoyment and to cultivate very adequately the literary taste. In this aspect, it was perhaps worth even the medical man's while to devote the time to learn Latin and Greek; but classical literature, in spite of its enormous prestige, had very little attraction for the mass of even cultivated persons at the present day. Its cultivation from a practical point of view, for the medical profession, was useless. The greater part of six or seven years devoted to gain such an accomplishment appeared to be wholly wasted. What then should a boy destined for medicine learn before he began his special studies at the age of 17 or 18 years? In addition to those subjects usually taught in schools, he should have a thorough course of the English language and literature: this would do more to train his intellectual faculties and give him a command of language, a taste for good literature, and a culture far larger and better than he could obtain by acquiring an elementary knowledge of Latin, which would be of no use, was too scrappy and soon forgotten. French and German should also be learned, for the speaker believed that the power of reading both languages with ease could be acquired in the time now devoted to Latin and Greek, and that a knowledge of those two languages was essential to a practitioner who was desirous of being among the leaders of his profession, for the work done in the laboratories and hospitals of France and of Germany was of such a high order that no one who was ignorant of it could be considered abreast of medical knowledge. Sir JOHN then, speaking to a Welsh audience, referred to the encouragement given to the study of Welsh, a living language still, and advocated its study by those in Welsh universities. While these elementary subjects were imbibed, some time should also be given to gaining a familiarity with the elements of the natural sciences: so that, when college was entered, the subjects would not be strange which bore directly upon the medical profession. An elementary knowledge was therefore necessary of the principles of physics, chemistry and biology, together with a grasp of the general character and methods of all sciences. If the student had availed himself of the opportunities of learning offered during the first three years of his collegiate career, he would find his knowledge of disease and his skill in detecting its seat and nature grow apace. On the completion of the curriculum, Sir JOHN strongly advocated the necessity for holding a resident post of house physician, house surgeon, or resident obstetric officer, either one or all. Such a post would give in a few months an amount and kind of experience that private practice would not furnish. Further, the speaker advised cultivation of independence of character and freedom of thought. The two generally went together, and both were essential in the practice of the medical profession, both for the comfort of the physician and the good of the patients. And lastly, cultivation of sympathy was advocated: not a sentimental sympathy, but a sympathy aroused only by the real of distress, to which its response was never wanting, and when so aroused, it was always to some purpose.

COMMENTS AND NEWS.

PROTECTION AGAINST MALARIA.

EXPERIMENTS under the direction of Professor GRASSI have been carried out at Paestum with a twofold object: (1) To prove conclusively that malaria can be transmitted only by the bites of *Anopheles*; (2) to overcome the difficulties of the practical application of this discovery, and to decide on the means to be taken to rid Italy of malaria. Paestum was chosen on account of the special prevalence of the disease there. Here, during the malaria season, most of the inhabitants either leave or spend their night on the surrounding hills; a certain number, for example the railway officials, have to remain, and it was determined to use these for the attempt at protection. In the first place all those who showed any trace of malaria during the healthy season (January to June) were treated with quinine; and secondly, all under observation were protected from the bites of mosquitoes by nets during the infective period. The first infected mosquito was found on June 14th, and, allowing twelve days' incubation, malaria was anticipated on the 26th; as a matter of fact, the first case occurred on that date outside the zone of experiments. Three cases of relapse occurred during the infective season in persons who had falsely asserted that they had not previously had the disease. The preventive rules laid down were: to keep within the protected dwellings from sunset to sunrise, and in the case of officials who had duties during this time, to wear light veils and thick cotton gloves. The houses were protected everywhere, even the chimneys, with wire netting. Here and there an *anopheles* was found in the houses, but they were for the most part caught before they had stung any one. All the persons under observation were visited twice a day; precautions were taken against their procuring any quinine, and yet all continued free from malaria. The number was 104. In the country surrounding the protected zone, on the other hand, the disease was general, and affected by far the majority of the inhabitants, even when living on farms in high situations. The twofold object of the experiment was therefore attained, and the practical protection from the bites of *anopheles* shown to be feasible.

THE PRACTITIONER'S DUTY IN THE TREATMENT OF ACUTE INTESTINAL OBSTRUCTION.

The practitioner's duty in the treatment of acute intestinal obstruction is summarised by MAYLARD (*the Practitioner*). He says there are no cases which occur in general practice that present greater difficulties in diagnosis than the subject here treated. Various symptoms and signs are enumerated, which he says might easily apply to one of many intra-abdominal disorders. He says, however, that the general practitioner can in almost all cases determine when there is "peritonism," whatever may be its cause. This being determined, there remains but one thing to do—open the abdomen. It is necessary that operation be done early to prevent disastrous consequences, not only from the lesion, but from the absorption of toxins. When acute obstruction occurs, the general practitioner should inject cocaine and open the abdominal cavity, bring the intestine into the opening, and form an artificial anus which will relieve the condition temporarily. If need be, a general surgeon can deal with the trouble later. The author suggests, however, that gastric or intestinal perforation presents a very different problem. But even here the general practitioner should operate if the surgeon cannot be had on short notice, for delay means certain death. MAYLARD has devised a portable operating table, which is

especially suitable for the practitioner not connected with a hospital. If the condition has passed beyond the initial stage and vomiting has supervened, the stomach and large bowel should be thoroughly washed out and a nutrient enema given before operation. MAYLARD believes in opening the gut and drawing it up the pent-up contents before seeking for the obstruction. In case of perforation, whether the abdominal cavity shall be flushed out or merely wiped out, depends on the general or local education. If in doubt, flush out thoroughly. Before closing the bowel an injection of MgSO in solution directly into the bowel-lumen acts well.

WHAT IS OLD AGE?

DR. H. C. WOOD, M.D., of Philadelphia, writing to the *Philadelphia Medical Journal*, says:—

Old age is certainly not a disease, and scientifically should never be given as the cause of death. The individual really dies of senile atheroma, or senile nephritis, or senile something else. On the other hand, the theory that old age is connected with a definite number of years is incorrect. Nearly 40 years' experience in the practice of medicine has very firmly convinced me that as the human race has a general period, after which tissue-changes take place, resulting in "death from old age," so do not only individuals but families have an allotted time. There are men whose tissues are not as senile when they are 80 years of age as others are at 70, or others at 60, or even at 50 or 40. I have seen the almost complete extinction of two generations of certain families by the death from senility of the various members when between 30 and 40 years of age; as the deaths in these cases were the result of changes in the tissues, commonly called "senile," it is just as correct to say that the subjects died of old age, though they were perhaps only 35 years old, as it is to say that certain other persons have died of old age at 75 years of age.

It would be of no improvement in our death certificates to limit death from old age to a certain period of existence. If there is to be any change from the present plan, it should be the abolition of old age as a recognized cause of death, and the requiring that the death certificate should show that the subject died of senile atheroma or whatever was the cause of the taking off.

It seems to me a matter of very grave importance for the purposes of prognosis and practical treatment that the medical practitioner should recognize that old age may commence at any time of life. Some of the so-called cases of neurasthenia are in fact only instances of premature senility; hence their hopelessness.

A LADY DOCTOR'S DOUBLE VICTORY.

A FRENCH law court has lately had before it a case presenting some features of special interest to medical practitioners. A lady who holds the degree of Doctor of Medicine of the Faculty of Paris some time ago operated on a young child for abscess of the neck. The operation was successful, but the father declined to pay the bill, which amounted to 400 francs. The lady brought an action, and the defence was that the operation had been badly done, and that the treatment had done more harm than good. These allegations were supported by a certificate from a dentist. The Court, finding its unaided intelligence unequal to the settlement of the dispute, called in the assistance of Professor BROUARD, who is the principal authority on medico-legal matters in France. The eminent Dean of the Faculty of Medicine after a careful inquiry, gave it as his opinion that the operation had been perfectly successful, and that the treatment had been thoroughly satisfactory. The lady, encouraged by

this opinion, straightway brought a further action for damages, on the ground that the defendant had sought to justify his refusal to pay by misrepresentations calculated to injure her in her professional capacity. The Court heard the case argued at full length, because the point, though reasonable, was held to be new, and finally decided in the lady's favour on both counts. The ungrateful parent had therefore not only to pay the bill for attendance, but 50 francs in addition as a solatium to the wounded professional feelings of the lady doctor.

SIR MACKWORTH YOUNG ON BOGUS DEGREES.

WE quote from the *Statesman* :—At the annual distribution of prizes of the Lahore Medical College, the Lieutenant-Governor, in the course of a speech to the students, said :—“I am sorry to say that of late certain unscrupulous persons, for their own purposes, have been initiating traffic in educational degrees and diplomas, which have actually been sold for money in this country. Some years ago we were all very much shocked to learn that in one of the important countries of the European continent titles, honours, and rank had been made available for purchase at money prices. I am sorry now to have to state that medical degrees and diplomas have actually been bought and sold in India, and the initiators of this nefarious traffic have been found to hail from one of the States of America, and I grieve to say that there have been young men in India foolish enough and unprincipled enough to fall victims to their wiles. Of course those young men who have thus attempted to benefit by the supposed opportunity of obtaining medical diplomas by the mere expenditure of a little money are now holders of nothing more than pieces of waste paper; but you will be glad to hear from me, and I am able to announce the fact on the authority of the Government of India itself, that the principal agent of these conferrers of bogus degrees has been arrested and is now being held at heavy bail. There is, therefore, every prospect of this traffic being checked, and I take this special opportunity, having, indeed, been desired by the Government of India to utilise the earliest convenient occasion to warn you that there are these spurious degrees being offered for sale by foreign agents in this country, and to impress upon any of you who may be approached in the matter that the only honest and sensible thing to do is to abstain from spending your money on a thing which has absolutely no value.”

ORIGIN OF LEPROSY IN HAWAII.

THE *Journal of the American Medical Association* says:—The introduction of leprosy in Hawaii, from recent statements, seems to have been under the special protection of the native royalty and aristocracy. It first appeared in the person of a chief KAKAUNOHU, who had been to China, and from him was transmitted to another Naea, who was closely related to the reigning family. From the latter it quickly spread to his tenants and retainers, and for a considerable time was known among the natives as the

“ma'i aili,” or the chief's, or royal, disease. The missionary physicians soon learned to recognise it, and one of them, Dr. DWIGHT BALDWIN, it is said, made a report on it, stating the facts of its origin, etc., and filed it with the Minister of the Interior; but it was held from publication, doubtless on account of the connection of royalty with the introduction of the disease. So long as the Hawaiian monarchy existed, segregation of lepers, though legally demanded, was very imperfectly carried out, owing, it is said, to the interference in high places. Since the overthrow of the monarchy, however, the measures have been more effective, and the seeing of lepers on the streets, which was formerly an occasional event, is no longer possible. The isolation law is an unpopular one with the native Hawaiians, who possibly regret the passing of the old régime on that account as much as on many others. These data are obtained from the *Honolulu Commercial Advertiser*, whose authority for the main facts is the Rev. SERENO BISHOP, who was one of the earliest to recognise the affection on the islands. We have not seen this bit of medical history narrated elsewhere.

REMARKABLE DISPLAY OF NERVE.

ONE of the most remarkable displays of nerve and will-power ever witnessed at any of the Reading hospitals was that reported of ALLEN WOLFESKILL, the young man who had both of his legs crushed in attempting to jump from a moving freight train on the Reading Railway. In speaking of the accident, he said : “The moment I dropped to the tracks, I felt the wheels passing over my limbs, and that they were gone. I did not faint; but realizing the fact that I would bleed to death unless something was done quickly, I set to work with a view of stopping the flow. I first tied up my right leg with my handkerchief, and while I was doing this a companion who had been more successful in jumping the train than myself came along and let me have his handkerchief, and with this I bound up the left limb.” He urged the driver to hurry while on the way to the hospital, and said if he did not he would take the reins himself. He did not want ether administered, so that he might witness the amputation.

ELECTRIC APPLIANCES IN CALCUTTA.

Indian Engineering says:—The popularity of electric appliances in Calcutta has in a very short space of time assumed vast proportions, and it is hardly too much to say that electricity has now become a very important factor in the domestic economy of the citizens. There is no private house of any pretension but has its electric installation for lighting and punkas, and it is a very insignificant public place that is not so fitted. Calcutta has certainly taken the lead in this matter among all the cities of Asia.

TEST OF KHAKI COLORS.

AN interesting and important test is in progress at Fort Myer, Va. Some complaints have been received at the War Department that the shade of garment known as khaki color offers more of a target than blue, which was the color of the former shirts issued by the quartermaster's department. The test at Fort Myer is for the purpose of ascertaining the relative protection offered by the two colors. The tests include observations of garments of different colors at various distances.

SHORT ITEMS AND PERSONALITIES.

Miss M. Trail-Christie, M.B., has been selected for the permanent charge of the Victoria Dufferin Hospital in Calcutta. Miss Christie is a lady possessing the highest qualifications, and was somewhat lately on plague duty in India. She has held several important posts at home, and will come out in February. The competition for the post in Calcutta was, we hear, very keen.

Lieutenant-Colonel B. D. Murray, I.M.S., "Professor" of Surgery to the Calcutta Medical College, has withdrawn his subscription from the *Record* owing to our remarks on his "Stone" case. We fear this serious monetary loss is likely to cripple the very existence of the *Record*! Will somebody kindly *apologise* for us?

Miss Holman, the lady apothecary, has been appointed Resident Assistant Surgeon to the Lady Curzon Hospital, Bangalore, on a salary of Rs. 120 per mensem and Rs. 50 for an allowance charge. Miss Holman takes charge on the 5th proximo.

Lieutenant-Colonel J. Maitland, I. M. S., has returned to Madras after a year's furlough and taken charge of Senior Surgeon's Office in the General Hospital, Madras, from Captain Giffard, who was acting for him. Captain Giffard goes to Trichinopoly as District Medical and Sanitary Officer."

Lieutenant-Colonel Hatch, I.M.S., and Lieutenant-Colonel Channer, I. M. S. (Bombay), have been selected for appointments on the administrative grade."

The number of Military Assistant Surgeons and Hospital Assistants to be entertained in each Command is now under the consideration of the Government of India.

Craving for whiskey is overcome by dropping a few drops of tincture of cinchona far back on the tongue.

WANTED—A THIRD GRADE HOSPITAL ASSISTANT to come to Burma on mutual transfer with the undersigned. Any one from Punjab or N.W. P. will be accepted. For particulars, address :—

H. A.,

C/o Manager, "Indian Medical Record."

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 copies will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

NOTICE.

All members of the Indian Medical Association are kindly requested to send their names in full with their present addresses, clearly written, to the Secretary.

Members who have paid their subscriptions and who have not received the membership certificates are kindly requested to notify the same to the Secretary.

Subscribers are requested to communicate any temporary change of address not to the Office of this Journal, but to the post-office through which they are accustomed to receive their Journals.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Medical Appointments, Transfers, Exchanges are easily and cheaply effected through our special short advertisement page. See terms and apply at once.

The *Indian Medical Record* offers the following prizes :—Rs. 10 to Rs. 16 for a good Original Article ; Rs. 5 to Rs. 10 for a good Clinical Report. Competitors must be subscribers to the *Record*.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

The Indian Medical Association Provident Fund is now working. It offers a simple and safe form of Life Assurance to all medical men and women. Join at once.

News items of medical interest from all parts of the Indian Empire are asked for by the Editor for publication in the *Record*.

Current Medical Literature.

MEDICINE.

Treatment of Ataxic Patients by Co-ordination Exercises, with Demonstration of Two Patients.

JAMES J. PUTNAM says that in the treatment by this method several points should be strictly borne in mind: (1) It is skill, not strength, that it is sought to develop. (2) It is necessary to begin with relatively elementary motions, such as drawing the leg up and down in bed, or moving the finger from one spot to another. The patient should be called upon to perform them with promptness and accuracy and at the word of command. (3) Dulness, monotony, and fatigue, on the one hand, and superficiality on the other, are the rocks to be avoided, both by the introduction of sufficient variety into the exercises, and by giving them something of the entertainment of games of skill. (4) It is not well to let the patient get on without an instructor, using a prescribed set of exercises. The necessity for obedience to the word of command, which calls for close attention and for movements which come to have something of the character of involuntary reflexes, is a great help in stimulating both the conscious and the sub-conscious attention and the power of instinctive control. (5) Weak, anæmic patients, and those suffering constantly from pains and crises, those with atrophy, rupture of tendons, cardiopathy, aneurism, obesity, arthritis, laxity of ligaments, or severe arthropathy are not good subjects for the treatment. —*Boston Medical and Surgical Journal.*

Gravity of Rheumatism in the Child, from the Point of View of Cardiac Complications.

M. H. BARRIER declares that articular rheumatism in children is an affection of grave import on account of the frequency and severity of the cardiac lesions incident thereto. Various authorities state the percentage of cardiac affections to be eighty-one per cent., or even as high as eighty-seven per cent. The onset of rheumatism is often marked by general phenomena—fever, headache, vomiting, etc.—which show that in children rheumatism has more the course of a general infectious malady than that of a multiple arthropathy, and that the visceral localizations in the heart in particular are not in relation to the intensity of the articular manifestations. The majority of cases of rheumatism in children, which BARRIER has observed, accompanied by more or less grave cardiac complications, have yielded in a few days to treatment by sodium salicylate. Death may occur in from three to six months after the beginning of rheumatism in children previously in good health. It is probable that the severity of the cardiopathies in the child are mainly due to pericarditis. It causes in a great number of cases a fatal termination. —*Journal de Médecine de Paris.*

Albuminuria in Young Men.

H. W. SYERS claims that in the case of young men between the ages of fifteen and twenty or twenty-five years, albuminuria is often found which is not a symptom of renal disease. As albuminuria can be induced in perfectly healthy and robust individuals by exposure to cold, the author holds that many of these cases are due to chilling of the surface of the body, as in open-air bathing. Why albumin should appear more readily in the urine in some cases than in others in which the same exciting cause is present can be explained

only on the same principle as the well-known tendency of some people to catarrh on the least exposure. When examination shows entire absence of the renal heart (hypertrophy of the left ventricle, reduplication of the first or accentuation of the entire second sound), a pulse of normal tension, and no cedema or dyspnea, then, if there are no casts, it is in the highest degree probable that the kidneys are perfectly sound. Of course it is possible that if the patient is likely, from carelessness or necessity, to be repeatedly subjected to the chilling process, what is at first merely an ordinary stasis in the kidney might, by constant repetition, become a renal inflammation. —*The Clinical Jour.*

Significance of Oxaluria.

DR. ROBERT F. WILLIAMS, from a lengthy consideration of the subject, draws the following conclusions:—

1. Whereas the appearance of oxalates in the urine—excluding their ingestion in foods—is due to a derangement of digestion or metabolism, this derangement probably has its cause in many cases in functional nervous irregularity, which may or may not be so great as to produce general nervous symptoms, and if these are present, they are not necessarily caused by the oxalates.

2. The condition causing the appearance of oxalates in the urine may produce symptoms closely simulating the constitutional symptoms of BRIGHT'S disease.

3. The excretion of oxalates by the kidney for a short while may occasion no local disturbance of that organ, but if continued may, by irritation, cause the appearance of albumin and casts with lessened urine, corresponding to the urinary symptoms of BRIGHT'S disease, and if unchecked may lead to permanent destruction of kidney tissue and true BRIGHT'S disease.

4. In all suspicious cases in which the nephritic symptoms are accompanied by the appearance of oxalates in quantity, diagnosis should be held in abeyance and the oxaluria overcome by appropriate remedies to exclude this as a possible cause of the symptoms before making a positive diagnosis and pronouncing a necessarily hope-dispelling prognosis. —*New York Med. Rec.*

Infantile Stools.

THE following summary is appended to a paper contributed to the Physician and Surgeon by Dr. CHARLES DOUGLAS:—

Green stools are never healthy.

They always show imperfect digestion.

The damage to the child is in direct proportion to their presence.

These stools render children more susceptible to acute gastro-enteritis in hot weather.

The high infantile summer mortality follows children suffering from this colored stool.

Through unhealthy nutrition the blood is poisoned and the various tissues are improperly nourished.

The excreting organs, particularly the kidneys and liver, are frequently damaged by the extraordinary duties imposed on them in the elimination of these poisonous results from the blood.

The continued irritation and innutrition favors the development of inherited diatheses and acquired cachexias.

No child is free from complications dangerous to life, or from developmental errors, who suffers from frequently recurring green colored stools, particularly the very liquid and foul smelling ones. —*New York Med. Rec.*

SURGERY.**What Fractures are Amenable to Immediate Massage?**

LUCAS-CHAMPIONNIERE says:—The term gluco-kinesis has been coined by CHAMPIONNIERE to express his methods of gentle massage without causing pain, applied as soon as possible after the injury that caused the fracture, with no attempt at immobilization. The repair of the bone and absorption of fluids is much more rapid and complete than with other methods of treatment. The vitality of the parts, suppleness and nutrition are maintained, while the pain and contraction rapidly disappear. The fractures that always benefit by this treatment are those of the upper portion of the humerus to the insertion of the deltoid, and of the lower portion to four finger widths from the joint; all fractures of the malleoli with no tendency to displacement sideward or backward; all fractures of the elbow, and especially of the olecranon, all fractures of the radius at the wrist without too much retrodisplacement; nearly all of the clavicle; all of the lower portion of the fibula without a tendency to deviation from the axis of the foot; all fractures of the femur or tibia at the knee without displacement, and also all fractures of the scapula. Other fractures which exceptionally justify this method of treatment are those of the middle portion of the humerus and of the two bones of the leg without displacement, and fractures of the two bones of the forearm. In certain other cases massage and immediate mobilization can be combined with the use of an apparatus, but the results are less complete and remarkable than when no apparatus is used. In children, mobilization is sufficient without massage, and the latter is also omitted in the aged if the veins are dubious.—*Journal de Médecine de Paris*.

Case of Syphilitic Gummata of the Spinal Cord successfully treated by Enormous Doses of Iodide of Potash.

THIS case, reported by Dr. F. W. CAMPBELL, of Montreal, was a very interesting one. The patient was a highly neurotic individual, and some time before had suffered from insomnia of an aggravated character. Retention of urine and loss of power in the lower limbs were noted. The patellar reflex was about normal. The loss of power in the lower limbs was absolute. The pulse varied from 80 to 96; the temperature never above 99. The stomach remained in fairly good condition all the time. A consultant from New York was brought on, and a diagnosis was established of tumor of the spinal cord, situated about the first lumbar vertebra, which might be sarcomatous or syphilitic. The advice of the consultant was to give 500 grains of iodide of potash per day, at first commencing with a drachm three times a day. Dr. CAMPBELL recited the daily history of the patient while getting under the large dose and its gradual withdrawal. The patient is alive to-day and in good health, having recovered complete control of his lower extremities.—*The Practitioner*.

Treatment of Severe Cases of Diphtheria with Saline Infusions.

E. E. LASLETT states that in the acute stage saline infusions are employed to dilute the toxin by the introduction into the system of an additional amount of fluid which helps also to flush out the kidneys. In the late stage they are used when along with the persistent vomiting; nutrient enemata are also rejected. Inasmuch as the fluids of the

body are thus constantly diminished, the blood must become more viscid, and the action of the heart be impeded. Saline infusions tend to prevent this state of affairs. LASLETT used two teaspoonfuls of common salt to the pint of water, utilizing as a site of injection the loose skin below and outside of the right breast. Gravity was the force employed the bag being held about three feet up. He found that from ten to fifteen ounces can be injected in half an hour. The child does not seem to mind the operation at all. Fifteen cases are reported. The only safe conclusion drawn (seven died, but the type was severe,) is that the treatment seemed to have some influence in diminishing both the frequency of onset of symptoms of heart failure and their severity when they did occur.

Method of Hand Disinfection.

J. HAHN has used the following method with success, and believes it possesses advantages over those in general use. The hands and forearms are scrubbed with common yellow soap and water at a temperature of about 104° F. with a boiled brush, the water being changed four times, and sufficient soap used to make a lather. After the second scrubbing the nails are cleaned and trimmed. The washing is then continued for four minutes with an alcoholic one per cent. bichloride solution, which is rinsed off in a one to two per cent. aqueous solution of the same agent (for one to two minutes), and they are finally again immersed in the alcoholic solution after the operating-gown, has been put on.—*Centralblatt für Chirurgie*.

Recurrent Epididymitis.

AFTER a review of the subject and brief reports of a number of cases, CHETWOOD concludes as follows: (1) Surgical resection of the testicular ducts, which obliterates the lumen entirely and positively prevents an ascension of the spermatozoa into the urethra, also prohibits the descent of inflammation from the urethra into the epididymis. (2) The pathologic occlusion of the ducts by inflammatory process only accomplishes this result partially, since it is clearly in evidence that many of the cases having had double inflammatory epididymitis still continue to suffer from a recurrence of inflammatory attacks in the epididymis, and since it is also proved that some of these individuals continue to have vital spermatozoa in their seminal discharges and to retain the capacity to impregnate their wives. He is not aware that this point has been clearly demonstrated before this writing.

Etiological Significance of Trauma.

DIRSKA deprecates the tendency to attach undue importance to acute trauma as a cause for secondary illness, especially in cases in which suits for damages are involved. Traumatic neuroses are often diagnosed, but in the author's opinion are really comparative rarities. The possibility of the lighting up of otherwise latent tuberculous pneumonic or cancerous growths through somatic concussions is, to say the least, problematic. There are three fallacies that frequently stand sponsors for an erroneous diagnosis of a traumatic origin of a disease. First, the assumption that it is particularly the lighter forms of injury that are followed by such consequences; second, one is easily carried away by the plausibility of an ingenious theory, apparently correlating the supposed cause with the effect; and third, the factor of auto-suggestion is strong in the patient, and there is an almost universal tendency to connect illness with some previous injury.—*New York Med. Rec.*

OBSTETRICS AND GYNECOLOGY.

Management of Normal Labor, including the Use of Forceps;

DR. AUSTIN FLINT, JR., of New York City, urges that it be made a routine practice carefully to examine the pregnant woman at the end of the eighth month. This examination should, of course, include pelvic mensuration. The patient should be instructed to take daily walks up to the very time of labor, as this exercise would strengthen the muscles, soften the cervix, aid dilatation of the latter, and make abnormal presentations less frequent. At the time of labor the genitals should be sterilized, and an examination first internal and then external, made in order to confirm the results of that made the previous month. It was far better to make this one examination complete and thorough than to make a number of superficial examinations at short intervals. The practice of giving a little ether with each pain was gaining ground, the administration being conducted in just the same way as with chloroform. Emphasis was laid upon the importance of observing the old rule, to prevent, as long as possible, the rupture of the membranes. An anæsthetic was of great advantage in many cases, yet those who used anæsthetics most would probably see the largest number of cases requiring forceps. As soon as the head ceased to descend, and the withdrawal of the anæsthetic or stimulation failed to restore good uterine contractions, a low forceps operation should be done at once. This practice was safer than the waiting policy. Traction should be slow, gradually increasing in force until the soft parts in front of the head were stretched. Then the head should be held for about one minute before traction was slowly relaxed. After a rest of three or four minutes, traction should be resumed. By this mode of procedure delivery could be effected with an intact pelvic floor in a surprisingly large percentage of cases. Immediately after the delivery of the head, the mouth and eyes of the child should be wiped out, if possible, before the first effort at inspiration. The interval between the second and the third stage was the time when infection was most likely to occur. It was rare that an internal examination was required in normal cases after the birth of the child. Before attempting to deliver the placenta, the hands should be sterilized again, and after an interval of twenty or thirty minutes the placenta should be expressed. The length of this third stage depended upon the firmness of the uterine contractions. It was his custom, after the delivery of the placenta, to give a hot sterile douche, as this stimulated uterine contraction, removed clots, and enabled the obstetrician to inspect the parts and readily detect even slight tears of the birth canal. The use of gloves had not proved satisfactory. The speaker said that ether possessed many advantages over chloroform, and should be used, as a rule, when the pains were of moderate severity. He had not yet employed the new method of spinal anæsthesia sufficiently to be able to express an opinion regarding its value or possible dangers.

Technique on Closure of Abdominal Wall.

NOBLE describes the successive methods which he has been led to use in suturing up the abdominal wall in laparotomy operations. He has given up silk-worm gut for abdominal suturing, and uses catgut exclusively, closing the walls in the following manner: (1) The peritoneum is closed with fine cumol catgut. (2) The aponeurotic sheath of one rectus muscle (the right) is then separated from the muscle by blunt dissection, thus baring the under surface of the aponeurosis. The upper surface of the aponeurotic sheath of the left rectus muscle is then dissected clear of fat, with the object of suturing

the under surface of the right aponeurosis upon the upper surface of the opposite aponeurosis. The suturing is then begun by passing the needle, armed with medium chromicized catgut—sterilized by the cumol method—through the aponeurosis of the rectus muscle of the left side of the wound, and thereafter by continuous suturing, closing the rectus muscle until the opposite end of the wound is reached. The needle is then brought from below upward, through the aponeurosis on the left side of the wound. The aponeurotic layer is then closed by passing the needle from below upward through the aponeurosis on the right side; then passing it through the aponeurosis of the left side, as in the LEMBERT intestinal suture; and again from below upward through the aponeurosis of the right side, and so on till the end of the wound is reached, when a single knot completes the closure of the muscles and fascia. The subcutaneous fat is then closed with a continuous catgut suture in one or more layers using fine catgut. The skin is next closed by the intracuticular stitch with fine catgut. Scrupulous care is given to these methods to control all the bleeding vessels. The wound is washed repeatedly with salt solution to prevent blood clots and remove the germs. The method of cleansing the patient and the operator's hands is given in detail, and the different steps of operation illustrated. From his results he concludes that celiotomy wounds, which cannot be closed without drainage and suppuration, can be reduced to 2 per cent. or less, and that post-operative ventral hernia can be reduced to a fraction of 1 per cent.

Anteflexion.

AN analysis of his experience in operative treatment of anteflexion leads BURRAGE to lay down the following rules for guidance in these cases: (1) In anteflexion without ovarian or tubal disease, and free from shortened uterosacral ligaments or posterior adhesions, dilatation, curetting and DUDLEY'S operation or amputation of the cervix, with a preference for the former. (2) In anteflexion with retroposition and shortened uterosacral ligaments or posterior adhesions, and without ovarian or tubal disease, dilatation, curetting and division of the uterosacral ligaments or adhesions by colpotomy and DUDLEY'S operation or amputation of the cervix, with a preference for the former. Amputation of the cervix is a useful operation where the cervix is very long, and also where there is extensive erosion of the crown of the cervix. In married women, in both of the foregoing classes, dilatation and curetting without other operation are sufficient, because pregnancy will usually straighten the uterus and stretch the ligaments and adhesions. Should pregnancy not supervene within a number of months, and should the symptoms persist, another curetting and DUDLEY'S operation, with or without division of the ligaments, may be done. (3) In anteflexion, with or without retroposition, having ovarian or tubal disease, dilatation, curetting, DUDLEY'S operation, and suspensio uteri, the uterosacral ligaments being divided through the abdominal wound if they are shortened and whatever may be necessary done to the ovaries and tubes.

Treatment of Genital Prolapse in the Woman.

COVILLE divides prolapse into three sections: (1) Partial prolapse; (2) complicated prolapse (tumors, hypertrophies, or uterine deviations); (3) complete prolapse. Prophylaxis should consist in keeping the parturient woman in bed from ten to twelve days at the least. Any laceration should be immediately repaired. Curative treatment should consist in operating for prolapse, whatever the degree, unless there exists the contraindication of an inoperable malignant tumor. The time of pessaries has passed and ought now to give way to surgical treatment, rational and benign, and which promises to the patient not only relief from suffering, but the integrity of her functions—*La Presse Médicale*.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Anatomy of the Accessory Nasal Sinuses.

G. BRUHL describes a new method of demonstrating the exact position of the sinuses and their relation to surrounding structures. The heads are immersed in an acid solution of formalin, then treated with alcohol and ether, and finally with carbolized xylol. The cavities are filled with a molten mixture of lead, tin, bismuth, and cadmium, called WOOD'S metal, which soon hardens. They are finally submitted to the x-ray process, which brings out a dark spot wherever the metal has penetrated. The positions of the sinuses are definitely located in the radiograph.—*Berliner Klin. Woch.*

Physiology of the Labyrinth: A New Theory of Hearing.

J. W. BARNETT gives an abstract of this new theory as originally propounded by J. RICH EWALD. He calls it the "Sound-Picture" theory, and gives the following as its ground principle: membranes can vibrate in very different manners. They can form a vibration type of their own when they give out their own special tone. They vibrate then in a manner similar to plates which show CHLADNI'S figures. In the telephone and the phonograph, membranes vibrate as a whole when influenced by sound waves—that is, without nodal lines. They follow the sound waves, and for this purpose must not be too thin or too flexible, and especially if they are very extensible, not too weakly stretched. Finally, they can be stretched on a frame, and if impulses act on them, they can create moving waves. If these are reflected from the frame, so that the impulse is given out from opposite ends at the same time, then the stationary waves are created which produce a characteristic picture for the given impulse. In this case, the membrane must be as thin as possible, as flexible as possible, and at least in one direction as little stretched as possible. In the ear, the impulses falling on the ground membrane create a sound-picture, whose special form enables the ground membrane to create a link in the chain of the transmission apparatus, which intervenes between sound and sound sensations. This is the ground principle of the sound-picture theory, no more and no less.—*Intercolonial Medical Journal of Australasia.*

Etiological Relations between Traumatism and the Formation of Neoplasms.

ON account of the varying opinions as to the etiological value of traumatism in the production of neoplasms, LENGNIK has studied 579 cases of malignant tumors treated in the surgical clinic of Königsberg. Out of thirty-one cases in which the patients attributed the origin of the tumor to a trauma, seven times this statement seemed wholly improbable; twelve times the influence of the trauma was evident; in the remaining twelve cases there was doubt. The following observation seems very significant: A young man, aged thirty, fell and received a severe contusion of the genital organs. There was formed a swelling of the left half of the scrotum. This was tapped three weeks after the accident, and half a litre of dark blood was drawn from it. This was followed by a purulent infection, making it necessary for the man to enter the hospital of Eiselsberg. An incision was made, and this afforded proof that the testicle was necrotic and that the spermatic cord was perceptibly thickened. The testicle was removed and the wound plugged. The microscopical examination of the cord showed that it was a case of myxosarcoma. This diagnosis was confirmed by the clinical course of the affection, since, on the surface

of the wound, there appeared numerous nodules which were not long in presenting the characteristic features of a relapse. Another operation showed that the neoplasm had already invaded the abdominal cavity, following the spermatic cord. Five weeks later the patient died, and the autopsy confirmed the diagnosis of sarcoma of the cellular tissue with metastasis in the lungs and liver.—*Translated from Giornale Internazionale delle Scienze Mediche.*

Pathogenesis of Gout.

THE author's summary concerning the pathogenesis of gout rejects the old view of GABROD that the essential element of gout is the deposit of uric acid in the joints, and believes that this deposit is only a symptom, as is also the increase of uric acid in the blood. The deposit occurs in the joints secondarily to a necrosis in the joint tissues. This necrosis is brought about by the irritating action of certain alloxur compounds, particularly adenin, circulating in the blood. It has been shown that before the outbreak of an attack of gout there is a retention of nitrogen in the system. This retention is not accompanied by an increase in weight, and is to be credited to the presence of nitrogenous extractives of the alloxur or uric acid group. The adenin is the most harmful, producing necrosis of the tissue-cells. Why it does so in certain particular organs or parts, like the joints, is not definitely known, but it probably depends upon anatomic conditions. The necrosis induces an extensive disintegration of tissue-cells, and the decomposing nucleins of the latter lead to an accumulation of alloxur bases and uric acid in the blood. The uric acid thus produced, or that existing pre-formed in the blood, is deposited in the affected parts as tophi. The recent theory of LUFF, according to which the primary fault is in the kidneys, is rejected by HAGER.

Pancreas in Relation to Sugar Reduction and Diabetes.

UMBER has carried out a series of experiments to test the observations of BLUMENTHAL that the expressed tissue juices of the liver, spleen, and pancreas have a reducing action on grape sugar, most active in the case of the pancreas, least in that of the spleen. UMBER finds that if the pancreas is excised with aseptic precautions and all foreign matter excluded, the expressed juice has no reducing capabilities. He also excised portions of pancreas from a living dog and added them to a sugar solution, but four days' digestion produced no result. Experiments were also made on the glycolytic action of blood; this was taken from different vessels, including the pancreatic vein, directly into sterile slightly alkaline sugar solution; a distinct though small reduction was observed, but there was no difference between the blood from the pancreatic vein and other specimens. These experiments would seem to disprove the idea that the derangement of glycolysis in diabetes is due to the absence of certain pancreatic sugar-reducing ferments.—*Brit. Med. Jour.*

Cancer Parasite.

CURTIS, of Lille (*Brosse méd., Paris*), has obtained entirely negative results in a series of experiments which he has carried out for over four years. He considers that tissues taken from superficial epithelium are not good, on account of their liability to contamination. Tissues from the breast and testicles are better. In eighteen such cases, and a careful series of experiments, he failed to obtain any growth on any media, or to produce contagion in other animals. He therefore concludes that positive results have been obtained only through imperfect technique.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Two Cases of Extreme Brevity of Vaccinal Immunity.

CHARLES VIANNAY cites these cases, which occurred in his own family, one five months after a successful vaccination, the other seven months. The disease was contracted by both individuals as they were nursing the writer, who was suffering from an insignificant attack of varioloid. The writer had been previously vaccinated six times without success, and then contracted the disease by making an autopsy on a virulent case. One of the first symptoms of invasion in the cases noted was aching of the legs which preceded the backache. During convalescence, the least fatigue caused a sensation of extreme lassitude in the legs. The history of these three cases would seem to indicate a family susceptibility to this disease.—*Lyons Med.*

Examination in Practical Hygiene for School Teachers.

No examination has hitherto been established suitable for school teachers desirous of showing knowledge in practical hygiene, and we learn with satisfaction that the Council of the Sanitary Institute, which has for the past twenty years been holding qualifying examinations for official sanitary appointments, has decided to arrange a thorough theoretical and practical examination which will be open to teachers and to those preparing as teachers. The syllabus includes: (1) Practical hygiene, individual and social, including the necessary physiology (students will be tested in their knowledge of foods, clothing, physical exercise, first aid in school accidents, infectious and other complaints); (2) hygiene of schools and private dwellings (structural), water-supply, drainage, and disposal of house refuse, warming, lighting, and ventilation; (3) hygiene in education. The student will be required to show a special knowledge of the health laws relating to bodily condition of childhood; the laws of health relating to mental condition of childhood; the psychological working of child's mind in acquiring knowledge; the using of various senses to vary the work of the brain; the ethics of character building; the mental presentation of moral forces as an aid to character formation; details of food and clothing from youngest infancy to six months, from six months to two years; principle of feeding and clothing to eight years; the purpose of a child's skin and internal organs in throwing off effete matter from the body in perspiration, refuse, etc.

Medico-legal Experiences.

In this address MILLS gives some interesting experiences in medico-legal cases, showing the tricks of lawyers and the peculiar position in which the medical witness often stands. He cautions witnesses against giving views regarding the books used by the examining counsel, as it is common practice to try to catch the doctor in endorsing what does not there exist. He shows the defects of expert testimony, and the probable reasons why it is ineffectual in many cases; prejudice is one of these, as in the celebrated GUILTEAU case. He thinks that the official expert system will never succeed in this country. The real way would be for the experts on both sides to examine the case together, and consult about the condition frankly and freely without any effort to come to an agreement for the mere sake of doing so. While the present system is probably the best, it is not always properly made use of. Very much depends on the competency of the experts, which it is needless to

say is not always provided for. In conclusion, he speaks about the physician's conduct as a witness, making the following points: (1) That the witness should not go outside of his own province. (2) That his testimony should be relevant and his manner respectful. (3) That he should always tell his story in plain language. (4) That he should never pose as an expert outside of his special line of work. When asked about the responsibility of persons on trial, he has on one or two occasions himself found it advantageous to disclaim being an expert on responsibility. While as a rule, repartee is not advisable, there are cases where it may be advantageous, but they are not common. The witness should learn not to say too much. It is exceptional, but it is also possible for the witness, through nervousness or modesty, to be too brief.—*New York Med. Jour.*

Husband's Liability for Care of Insane Wife.

THE Supreme Court of California has rendered decisions in two cases brought by the St. Vincent's Institution for the Insane *vs.* John T. Davis. One was for boarding and clothing his insane wife prior to June 1894, and the other was for keeping and caring for her, providing for her suitable boarding, lodging, clothing, washing, medicine, and medical and other attendance after that date. In both cases the court cites section 174 of the California Civil Code, which provided that, when a husband fails to make adequate provision for the support of his wife, then—except in certain cases—any person may supply her with necessities, and recover the value thereof from the husband. Under this rule, applied to the different circumstances of the two cases, in the first-mentioned case the Supreme Court affirms a judgment in favor of the St. Vincent's Institution for the Insane, and in the other case in favor of the husband. In the first case there was a very strong presumption that the husband had left his wife in a small town in Illinois, intending that her identity should be lost, that she might no longer be a charge upon him. Under such circumstances the court holds the husband would be liable for necessities, even though the parties supplying them did not know of his existence, or that the woman was married. And with regard to the contention that the evidence was insufficient to sustain a finding that the service was rendered on the credit of the husband, it being argued that it did not appear that he was even aware that she was being kept and provided for by the institution at all, the court answers that, even if he had no such knowledge, it would not follow that he was not liable, or that the service was not rendered at his request. But in the second case there was a finding that the husband, desiring in good faith to care for his wife elsewhere, had, in June 1894, demanded of the institution that she be delivered to him, and that the institution, without legal cause or excuse, had refused to comply with such demand, and against the will of the husband had thereafter retained the wife in its custody. Such being this second case, the court holds that no recovery for keeping and caring for her could be had therein, the section of the Civil Code quoted requiring that whoever supplies necessities to a wife must, in order to recover therefor, show neglect on the part of the husband to make adequate provision for her support, which was not shown in this case, it not being enough for the purpose that some suspicion was cast upon the motives of the husband, there also being some evidence tending to show good faith on his part.—*Phil. Med. Jour.*

THERAPEUTICS & PHARMACOLOGY.

Venesection and Saline Transfusion.

In the *Archives Provinciales de Médecine*, RAYNAUD has just concluded a serial article. The following is the author's own résumé: (1) Venesection by its depletive and depurative action is certainly the best method of mechanical disintoxication in all cases which represent a severe blood intoxication. It is not to be used as a routine procedure, but only in emergencies, and its beneficial effect is only temporary. (2) Saline injections should be used only hypodermically. Thus employed, they present none of the drawbacks of intravenous injections, although their action is somewhat less rapid. (3) Massive doses of saline solution may be employed in the treatment of medical hæmorrhages, in algid collapse, in the ataxo-adyndamia of typhoid affections, and in dysentery; but this remedy must always be used with discretion and with due regard to the state of the heart and kidneys. There are cases recorded of death due to the intemperate exhibition of saline transfusion. (4) Small fractional doses, as well as enemata of cold saline solution, may be used without fear in infections and intoxications, especially when there is vascular hypotension or difficulty in the action of the emunctories. It should be exhibited systematically from the onset of the disease in moderate quantities (150 to 500 c.c. daily). The general course and duration of the disease are often very favourably modified. (5) In all severe toxæmias or infections, when the patient's circumstances are desperate, venesection followed by massive injections without renouncing other methods of treatment is often capable of rendering the greatest services and even of saving life. One should not wait until the last moment before exhibiting the solution. (6) When the patient is too far gone for phlebotomy, it is still possible to withdraw blood and inject saline solution at the same time and in equal quantities, this procedure being a safe one.

Success of Mercury in Gonorrhœa.

A. PALDROCK says:—A patient had been long treated in vain for chronic articular rheumatism, which had first commenced about a year after a tedious, but finally cured, gonorrhœa. Inspired by BOTTCHEK's success with a case of general gonorrhœal infection cured with gray ointment, PALDROCK commenced a course of inunctions, and after 144 gm. had been rubbed into the patient in the course of five weeks, he was dismissed completely cured, and has had no recurrence during the year since. In another case of chronic gonorrhœa the cocci were found in the effusion of an intercurrent pleurisy. The writer concludes by suggesting that multiple articular affections with chronic, acute or past gonorrhœa should be treated with gray ointment even in the absence of syphilitic antecedents. Gonorrhœal articular affection is characterised by the rapid involvement of the ligaments and the small amount of exudate. Contraction, atrophy and ankylosis appear early. Such cases are by no means rare, but they usually masquerade as "chronic articular rheumatism."—*St. Petersburger Medicinische Wochenschrift*.

Diet in Albuminuria.

IN a paper on this subject read in the Section of Therapeutics at the recent International Congress of Medicine, Dr. A. ROBIN (Paris) said: It is recognised that the same system of diet is not suitable for all sufferers from BRIGHT'S disease. In particular, the exclusive use of milk causes in some of them an increase, at least for a time, of albumen in the urine. Further researches prosecuted for many years have convinced him that an exclusive milk diet diminishes albuminuria always less than a vegetable diet, sometimes even less than the use of meat alone. In all cases a mixed diet of milk and vegetables, or of milk and meat, has a better effect than the exclusive use of milk. The following is the system that he adopts for the purpose of ascertaining the regimen most suitable for each patient. He begins by giving only milk. This has the effect of first increasing the amount of albumen in the urine; then it diminishes and remains stationary. At this stage vegetables are added to the diet. New oscillations are then produced; when these have ceased, meat is cautiously allowed, whilst milk and vegetables are continued. In this way it is easy to ascertain which of the three systems of diet—milk, milk and vegetables, or milk, vegetables and meat—brings about the most marked diminution in the amount of albumen eliminated. It is important, also, to ascertain the value of each alimentary substance in regard to the production of albuminuria. Some researches which Dr. ROBIN has made on this subject have led him to the following conclusions: Bread has no effect on the albumen; wine causes an increase; amongst meats, beef and veal are more to be recommended than mutton or fowl; fish should be forbidden.—*Brit. Med. Jour.*

Powder for Gastric Acidity.

As the result of much experience, Professor PEL, of Amsterdam, recommends this formula:—

R Sodium bicarbonate	...	...	2½ drachms.
Calcined magnesia	...	...	2 "
Sodium bromide	...	...	2½ "
Bismuth carbonate	...	...	1½ "
Sugar of milk	...	...	2½ "
Oil of fennel	...	...	4 drops.

M. From half a teaspoonful to a teaspoonful to be taken an hour or two after eating, and a special dose in case of pain.—*New York Medical Journal*.

Lotion for Diabetic Pruritus Vulvæ.

LUTAUD (*Journal de Médecine de Paris*) gives the following formula:—

R Boric acid	...	...	750 grains.
Sodium bichlorate	...	...	75 "
Distilled water	...	...	1 quart.

For Craving for Morphine or Spirits.

R Ammon. bromidi	...	...	gr. v.
Ext. bellad	...	...	fld.
Ext. nuc. vom	...	...	fld.
Ext. cannabis ind	...	...	fld. aa m. ij.
Aque	...	...	ad 3 ij.

A dose four times a day.

Correspondence.

GRIEVANCES OF CIVIL ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I have read with much interest the letters of TOMTIT, M.B., published in your previous issues. This gentleman has very ably put forth the grievances of the Civil Assistant Surgeons in a serial form. He has brought forward all the chief points; but I fear it will be a voice in the wilderness—unheard and unheeded. The Civil Assistant Surgeons have all along been quite blind to their interests, and their position has gone day by day from bad to worse. The ordinary natural law of evolution has not found application in their case, and if it has, it has progressed in the retrogressive order. Their position and prospects have gone lower and lower day by day, because those who do not go forward are bound to fall backwards, there being no standing still in this universe.

The sister services have progressed forwards slowly, if not by leaps, and left the unfortunate Civil Assistant Surgeons in the shade. When the service was inaugurated, a Civil Assistant Surgeon was a gazetted officer; but what is he now? He is a gazetted officer still, so far as the word goes. His appointment is gazetted. His leave and promotions are gazetted; but has he any of the privileges which, in the eye of the public, distinguish a high official of gazetted provincial service from members of the subordinate service? All these points have been discussed by TOMTIT in his letter.

Looking over the rules under the Indian Arms Act, giving the names of officers who are exempted from the prohibitions of keeping arms without a license, one cannot but wonder. Paras. 3 and 4 of Rule I partly run as follows:—

(3) All military and naval officers, all soldiers (including reservists), sailors, volunteers, and such officers of the Police (including members of Thugi and Dakaiti Department), Forest, Postal, Telegraph, Jail, Salt, Opium and Excise Departments, as the Government by special or general order may direct.

(4) All Magistrates, Justices of the Peace, Deputy Collectors, Honorary Magistrates and Judicial Officers of or above the rank of Munsiffs, and officers of P. W. Department of and above the rank of Assistant Engineers.

Are not all the departments of State enumerated, with the exception of the Medical Department? The highest head of the department as such has not been exempted. He may be exempt, but not as head of the Medical Department. A Naib Tahsilidar is exempt, because he is a Magistrate; but a Civil Surgeon is not, unless he can claim exemption as European, East Indian, Volunteer or Jail Officer. This is not only degrading to the Civil Assistant Surgeons, but to the whole Medical Department.

Does not the Government think that the reasons which lead to the exemption of the officers of so many other departments hold equally good in the case of medical men? Are they less trustworthy than the rest? Are not their education and general attainments sufficiently high to entitle them to claim this exemption, or have they no necessity to keep and carry arms? A Magistrate runs the risk of making enemies among people by punishing criminals, and so requires arms to protect himself; but a medical man runs just the same risk, by appearing as the legal witness in such cases. Why, then, does he not require to protect his life?

Magistrates always go attended by their peons and orderlies—an advantage which the medical men have not. Almost all other officers can rent a house in whatever locality they think best, while medical officers have to occupy quarters supplied to them in the dispensary, and

the dispensaries are, as a rule, situated outside the towns, and cannot boast of the protection afforded by a watchman or constable. In case of an accident, a medical man, located as he is, would be utterly unable to defend himself, and protect himself, family and property. Almost all other officers are perfect masters of their time (excepting the few office hours). Their duties do not require them to leave their homes or offices at every call; but that is not the case with medical men.

The Mussoori case must be fresh in the memory of all, when the moral and legal duties of a medical man were discussed.

The concensus of opinion then was that it was the moral duty of a medical man to attend an urgent case when called out, even to a distance, and even in the middle of the night. If the pretended case be merely an excuse to enslave him (for in more than half the cases he does not personally know the party calling him out), is it not necessary that he be amply provided for an emergency of this nature? Even ignoring such an extreme case, does he not incur any risk by going out at night to see a patient, either alone or attended very poorly?

The Government may be justified in ignoring many desirable reforms which require money, on the score of want of funds; but what reason can be given for things like this?

Let us hope that they were not given this exemption, because probably they never asked for it; nor was the matter ever brought to the notice of the Government, and that now the higher medical authorities will interest themselves, and the Government will lose no time in removing this disability from this hardworked class of officers of the Government, and earn their gratitude for an act of justice which will cost the Government not a single pice.

Yours, &c.,
A MEDICO.

THE SHEFFIELD-TALLERMAN TREATMENT OF SCIATICA, ETC., BY LOCAL DRY HEAT.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Since I last wrote to you, I have been at death's door, and I am still a cripple. But I have had so much benefit from the Sheffield-Tallerman treatment by local dry heat, that I feel I must send you an account of it, in case you and your friends should like to introduce it in India, where it would be useful in some troublesome cases.

I went home to have an operation for the radical cure of hernia performed. In the enforced stillness of the position after operation, gout developed, for which I was sent to Buxton in Derbyshire, the water of which is of a very composite nature. The water has no bad taste or smell, but is strongly diuretic, and after the "water cure" I was sent to the seaside for the "air cure," and I remained at Folkestone. Then I went to London.

Just as my wife was starting for home in October, when you know the cold is very moderate in London, I stumbled in the street, and felt so much pain in my right hip, that I thought I must have injured it somehow. I drove home and went to bed, where Mr. B. examined me, and said there was no injury, but a very sudden attack of sciatica, which I had never had before, and which prevented me from moving without great pain. As I wanted to meet my wife at Marseilles and go to Nice with her for the winter, this was a serious matter, so I went to 50, Welbeck

Street, Cavendish Square, to try the local application of dry heat, which you will find fully described in the *Strand* magazine for September 1900, illustrated with photographs.

The heat is very soothing, the pain seeming to melt away by degrees, so that after ten "bakings," one every other day, I was able to join my wife, and here we are for the winter, the climate being now very like that of Upper India in the cold weather. Each patient has a comfortable room to himself with a fire in it, and hot water after the bath to wash off the sweat. A man helps you to undress, and dress again after rubbing you dry. You take off your clothes, put on a sleeping suit, and lie down on a bed, wrapped up in sheet and blankets, a nurse remaining with you all the while to observe and record temperature, pulse, etc., wipe your face and give you water to drink.

The heat for the limbs is electric dark heat, the heat for the thorax or pelvis is by gas, and I assure you that 300°F. thus applied feels less oppressive than 150°F. in a Turkish bath. The only places where the heat feels at all uncomfortable are the elbows and the shins, where the covering of the bones is thin; but you are easily protected there by applying lint folded several times thick.

In my case the pulse was raised from 76 to 86, and the temperature from 98.4°F. to 100.4°F., and once to 101°F. The baking lasts about 40 minutes, but as soon as the patient begins to feel the pulse throb, or the heart begin to palpitate, the nurse stops the heat at once. The man then comes and helps you to dress, etc., and you stay in a sitting-room half an hour afterwards, reading the papers, till you are cool enough to go home. I have had no recurrence yet.

I need not tell you how troublesome sciatica often is, and how inconvenient it is for people to go home on sick leave for it at a moment's notice, to say nothing of the expense; so it occurred to me that perhaps you might think it worth while to treat people by this method. You will see by the published cases that the local heat is useful not only for sciatica, but also for gout, rheumatism, rheumatic gout, writer's cramp, and chronic eczema, which may have resisted all ordinary treatment, and you know all of these cases occur in India as well as in Europe.

Wishing you the compliments of the Xmas and New Year, in case I may never live to see another such season.

Yours, &c.,

LT. COL., I. M. S. (retired).

NICE, FRANCE; 21st November 1900.

AMERICAN MEDICAL FRAUDS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your exposure of the American medical frauds that have recently been perpetrated in this country, ought to go far towards determining the Government to pass a Medical Act. The fact that Government has gone out of its way, as it were, to warn people against the imposture is sufficient indication, I think, in concluding that our rulers are not entirely callous to their responsibilities in this connection. But there is another serious aspect to this matter of medical frauds in India, viz., that besides the purchasers of American bogus diplomas, we already have bolder impostors who, without going to the expense of purchasing diplomas, are in large centres of population setting themselves up as "Medical Practitioners," with alphabetical affixes to their names, intended to convey to the ignorant the possession of academic titles—an instance of this I can at this moment point to in the place I am residing. Here the individual has not had even an elementary medical education. When I have condemned the imposture, my statements have been met often with incredulity, because

it is contended that the State would not permit such glaring imposture as that of a man not only advertising himself in a lay newspaper, but flaunting a signboard in English and a couple of vernaculars. To explain that in the absence of a Medical Act such imposture was untouchable was rarely to carry conviction.

Fortunately for us, gentry of this kidney work out their own condemnation with all but the illiterate, sooner or later, inasmuch as it soon becomes evident that they are unable to uphold their pretensions. A surgical case or two, or one of difficult accouchement, generally proves too much of a test. But, then the army of illiterates, especially in things medical, is a mighty host, and is the salvation of the quack.

The step of passing a Medical Act for India no doubt is beset with difficulties, but with the advance of education amongst the native population, these difficulties must have considerably diminished within the last half century. The aids afforded by Western medicine are more and more freely resorted to every day, even by the rural population. In towns and large centres of civilisation, the European doctor is certainly more in evidence amongst all classes than the native *hakim*.

It is in such places that a Medical Act is sorely needed, and would not be felt as a hardship. The majority of lay people believe that Government does enforce some restraining measure on individuals who undertake the cure of disease without a license; it is only a small minority know the contrary, and it is from the ranks of these latter that the medical impostor is recruited. In short, the time has arrived when something more than a gazette notification warning the public is needed: people must be legally protected from a species of fraudulent dealing that they are not in a position to detect themselves.

Yours, &c.,

L. R. C. P. & S.

A HOAX OF A BINAURAL STETHESCOPE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—On receipt of an advertisement sent by B. M. NARAIN and Co., Chemists, Egerton Street, Delhi, I applied for a copy of the book and a binaural stethoscope, as I thought that the latter would be of some use. But to my surprise, when I unpacked the parcel, I found two broken pieces of wood and two pieces of India-rubber tube, each two feet long. I think it would do well for Mr. RAM NARAIN, L. M. & S. (Lahore), the author of the book referred to above, to request Messrs. B. M. NARAIN & Co., Chemists, not to advertise his book along with the one for a "binaural stethoscope." I enclose the post-card and advertisement, and write this for publication in your valuable journal, so that the readers of your journal may know the nature of the binaural stethoscope referred to in the advertisement.

Yours, &c.,

A SUFFERER.

(We have seen the post-card advertisement referred to. It purports to give a binaural stethoscope worth Re. 1-8 to all purchasers of Dr. Ram Narain's book. We publish this letter as an apparently legitimate complaint, and as a warning to others.—Ed., I. M. R.)

TRADE NOTICE.

THE PASTEUR (CHAMBERLAND) FILTER.—J. Defries and Sons, Ltd., 147, Houndsditch, London, has for a number of years been the acknowledged standard filter in scientific laboratories. Extensive experiments have proved its efficiency, but it is no longer necessary to infer this from laboratory experiment only. The statistics of the French army, in 245,000 quarters of which it is used, give more direct proof. They show that, under all kinds of circumstances, typhoid fever, cholera, and other water-borne disease, ceases on its use. Filters in which powdered or granulated carbon or sand are used, not only let the germs contained in the water pass, but also constitute an excellent culture medium for these, which are more numerous in the filtered than in the unfiltered water. The basis on which the Pasteur Filter is constructed is neither carbon nor sand. It was found that by taking certain mixtures of earths and preparing them under a particular process tubes could be made from the mixture which were all exactly like each other in appearance, and that some of these tubes had the property of removing infective bacteria from water. The actual ingredients and process of manufacture are a secret. Each tube is tested for bacterial soundness under the direction of Dr. CHAMBERLAND, of the Pasteur Institute, before it is employed in the construction of any filter.

Government Medical Gazettes.

BENGAL.

Asst. Surgn. Syed Mahomed Afzal is apptd. to act a House Physician, 2nd Physician's Ward, Med. Coll. Hosp., Calcutta, during the absence, on leave, of Asst. Surgn. Hari Nath Ghosh.

Asst. Surgn. Nitro Gopal Mitter, late of the Lalbagh Disp., is allowed leave for one day, in extension of the leave granted him.

The following Asst. Surgn. of the Bengal Estab. have passed the Septennial Exam., held at the Med. Coll., Calcutta, on the 5th Nov. 1900, and promoted to the grades noted against their names:—

Ganesh Chandra Mitter, Hatwa Raj Disp., 1st grade, 1st Nov.; Ananda Proshad Ghosh, Offg., Goalundo sub-divn., 1st grade, 1st Nov.; Lohit Mohun Laha, Patna City Disp., 1st grade, 1st Nov.; Bhagabuttu Kumar Chowdhury, Offg., Sambhu Nath Pandit Hosp., 2nd grade, 1st Nov.; Nrinrendro Nath Basu, Offg. Teacher of Medicine, Midwifery and Physiology, Dacca Med. School, 2nd grade 22nd May; Baroda Kanto Roy, Muzaffarpur, Disp., 2nd grade, 1st Nov. 1900.

BOMBAY.

* The undermentioned are granted leave:—

Asst. Surgn. H. A. Lafond, I.S.M.D., privilege leave for one month, from the 25th Oct. 1900.

Civil Med. Pupil Ganpat Rajanna Avar, Civil Hosp., Ahmednagar, sick leave for three months, from 5th Sept 1900.

The following promotion is made in accordance with Govt. of India Resolution dated 16th Jan. 1878:—

Second Class Hosp. Asst Girdharilal Dhanaji, to be Hosp. Asst. First Class, from 1st Oct. 1900.

Hosp. Asst. Gangadher Ramkrishna returned from famine duty and received ch. of the Bhambgaon Disp. from the 20th Sept. 1900.

Asst. Surgn. George C. McMullen, I.S.M.D., relieved from the ch. of Civil Surgeoncy and Ry. Med. duties at Sukkur on the 28th Aug. 1900, rejoined the Ry. Med. duties at Kotri, on the 29th Aug. 1900.

Asst. Surgn. Bhau Govind, B.M.S., relieved from the ch. of Ry. Med. duties at Kotri on the 29th Aug. 1900, rejoined the Jamnabai Disp., at Tata on the 30th Aug. 1900.

Hosp. Asst. Chothiram Pessusing was relieved from cholera duty, Thar and Parker Dist., on the 18th Aug. 1900, and placed on med. treatment at the Civil Hosp., Hyderabad.

Hosp. Asst. Chothiram Pessusing discharged from the Civil Hosp., Hyderabad, on the 25th Aug. 1900, and placed on gen. duty, Karachi, 27th Aug. 1900.

Hosp. Asst. Maganlal Kessoni is dismissed from the service from the 29th May 1900.

Asst. Surgn. James Earnest Barton Macqueen, I.S.M.D., Asst. to the Surgn. to His Excellency the Govr., held independent ch. of His Excellency the Govr's Body Guard, Household Estab. and Army Transport men at Ganeshkhind from 5th to 6th Sept. 1900.

Hosp. Asst. Shaik Lalbux Shaik Khudabux ceased to do plague duty at the Crater Plague Hosp., Aden, on the 10th June 1900, and received ch. of his duties at the Civil Hosp., Aden, on the 11th June 1900.

The undermentioned are admitted into the Dept. as Hosp. Assts. as a tempy. measure on the salaries stated against their names:—

Nathalal Sakarial Bhagat, 1st Aug. 1900, Rs. 35 per month; Manishanker Gaorishanker, 20th Feb. 1900, Rs. 20 per month.

The services of the undermentioned tempy. Hosp. Assts. have been dispensed with from the dates stated against their names:—

Ramchander Shridher Sahasrabudhe, 1st Sept. 1900; Narayan Vishnu, 29th June 1900; Ramchander Venkatesh, 18th Sept. 1900; Chandulal Beharilal, 1st Sept. 1900; Shaik Wazeer 14th Oct. 1900.

The undermentioned civil med. pupils have repaired to the Byramji Jijibhoy Med. Schools at Poona and Ahmedabad, and have reported themselves to the respective Supdts. of the Med. Schools.

Byramji Jijibhoy Medical School, Poona.

Dasharath Krishna Powar, Civil Hosp., Satara; Dwarkanath Sitaram Javeri, Civil Hosp., Satara; Shivabasa Sidhapa Tipabetti, Civil Hosp., Belgaum; Mayad Budhan valad Sayed Hussein, Civil Hosp., Karwar; Balwant Ramji Marathe, Civil Hosp., Dhulia; Mohomed Ibrahim Khan, Civil Hosp., Dhulia; Anandrao Shamrao Wagh, Civil Hosp., Dharwar; Wishwanath Govind Kulkarni, Rustomji Wadia Disp., Thana; Lalising Dhansin, Civil Hosp., Kaira; Ganpatrao Baburao Dalvi, Civil Hosp., Ratnagiri.

Byramji Jijibhoy Medical School, Ahmedabad

Ramchander Rajaram, Civil Hosp., Panch Mahals; Jamaludin Amirliya Kazi, Civil Hosp., Kaira.

BURMA.

Hosp. Asst. B. Sanyasy relinquished ch. at the Police Hosp., Shwabo, on the 5th Nov. 1900, and assumed ch. at the Police Hosp., Myitkyina, on the 10th Nov. 1900.

Hosp. Asst. B. Sanyasy relinquished ch. at the Police Hosp., Myitkyina, on the 11th Nov. 1900, and assumed at the Outpost Hosp., Loignu, Myitkyina dist., on the 18th Nov. 1900.

Hosp. Asst. U. Raman Nair relinquished ch. at the Outpost Hosp., Loignu, Myitkyina dist., on the 18th Nov. 1900, and assumed ch. at the Police Hosp., Myitkyina, on the 23rd Nov. 1900.

Hosp. Asst. K. P. Kannan Nambiar, on proceeding on six months' leave on medical certificate, relinquished ch. at the Police Hosp., Katha, on the 23rd Nov. 1900.

Hosp. Asst. Syed Asghar Hussain assumed ch. of additional duties at the Police Hosp., Katha, on the 23rd Nov. 1900.

Hosp. Asst. Ram Prasad Sinha relinquished ch. at the Police Hosp., Mogaung, on the 16th Nov. 1900, and assumed ch. of the Outpost Hosp., Kamaing, Mogaung subdn., on the 18th Nov. 1900.

Hosp. Asst. Ram Prasad Sinha relinquished ch. at the Outpost Hosp., Kamaing, Mogaung subdn., on the 23rd Nov. 1900, and assumed ch. at the Police Hosp., Mogaung, on the 25th Nov. 1900.

Hosp. Asst. J. P. S. Mullens, on proceeding to Mogaung to attend court, relinquished ch. at the Outpost Hosp., Kamaing, Mogaung subdn., on the 18th Nov. 1900, and on return assumed ch. at the Outpost Hosp., Kamaing, Mogaung subdn., on the 23rd Nov. 1900.

Hosp. Asst. J. P. S. Mullens made over, and Hosp. Asst. Ram Prasad Sinha assumed, ch. of the additional duties at the Civil Hosp., Kamaing, Mogaung subdn., on the 18th Nov. 1900.

The following Hosp. Assts. availed themselves of the leave granted with effect from the dates noted against their names:—

Hosp. Asst. Bishen Lal, from the 7th Nov.; Bhola Ram, from the 21st Nov.; Gobind Ram, from the 22nd Nov. 1900.

The following Hosp. Assts. on transfer to Burma, having reported their arrival from India, are posted to the stations noted against their names:—

Abdul Hussain, Myitkyila; Naziruddin Ahmed, Bhamo; Abdul Karim, Bhamo.

Major J. H. Sellick, I.M.S., made over, and Capt. G. Barry, I.M.S., assumed, executive and med. ch. of the Mandalay Central Jail on the 7th Nov. 1900.

Capt. E. R. Röst, I.M.S., made over, and Capt. E. G. Forrest, R.A.M.C., assumed, executive and med. ch. of the Melkilla Dist. Jail on the 2nd Nov. 1900.

PUNJAB.

Asst. Surgn. Khazan Chand, Sialkot Civil Hosp., has obtained one month's privilege leave, and was relieved of his duties on the 2nd Nov. 1900 by Asst. Surgn. Abdul Aziz, transferred from gen. duty, Amritsar.

Hosp. Asst. Karm Elahi, Gurgaon Sadr. Dispy., to the additional ch. of the Police Hosp., Gurgaon.

Hosp. Asst. Gokal Chand, at present in ch. of the Jail and Police Hosps., Dharamsala, is permitted to change his name to Bhadar Sen.

Hosp. Asst. Doola Ram, at present in ch. of the Chindwan Dispy., Dera Ismail Khan Dist., is permitted to change his name to Sukh Dev.

Hosp. Asst. Abbas Ali, doing gen. duty at Umballa, was apptd. as a temp. arrangement to the Karnal City Dispy., from the 21st Oct. 1900, relieving Hosp. Asst. Abdul Wahab Boff, who was placed on gen. duty at that stn.

Asst. Surgn. Ghulam Muhammad, doing gen. duty at Hissar, was apptd. to the ch. of the Karnal Sadr Dispy. on the 22nd Oct. 1900, relieving Asst. Surgn. Umrao Raja Lal, who was apptd. to do gen. duty at that stn.

On being relieved of the duties of Travelling Hosp. Asst., N.-W. Ry., Lahore Section, 1st Class Hosp. Asst. Kahi Khan was apptd. to do gen. duty at the Wazirabad Dispy., Gujranwala Dist., on the 4th Nov. 1900.

Hosp. Asst. Shabbir Hussain, doing cholera duty at Kohat, was attached to the South Waziristan Militia Regiment from the 6th Nov. 1900.

Hosp. Asst. Waryam Singh, Sangla Dispy., Gujranwala Dist., has obtained three months' privilege leave, and was relieved of his duties on the 1st Nov. 1900 by Hosp. Asst. Arjan Das, transferred from the Sialkot Civil Hosp.

Hosp. Asst. Khwaja Ahmad, Palampur Dispy., Kangra Dist., has obtained two months' privilege leave, and was relieved of his duties on the 4th Nov. 1900 by Hosp. Asst. Kahan Singh, transferred from cholera duty in the Gurdaspur Dist.

On being relieved of the ch. of the Pindigheb Dispy., Rawalpindi Dist. Asst. Surgn. Shankar Das was apptd. to the Murree Dispy., in the same dist., from the 10th Nov. 1900, relieving Hosp. Asst. Lal Singh, who was apptd. to do gen. duty at Murree.

Hosp. Asst. Imam-ud-din, Attock Dispy., Hazara Dist., and in med. ch. of the lock-up, has obtained 15 days' privilege leave. He was relieved of his duties on the 10th Nov. 1900 by Hosp. Asst. Jaggan Nath, transferred from the Rawalpindi Civil Hosp.

Hosp. Asst. Siraj-ud-din, doing gen. duty at the Civil Hosp., Jullundur, was transferred to the Dera Ghazi Khan Dist. He reported himself to the Civil Surgn. on the 24th Oct. 1900, and was apptd. to do cholera duty in the dist.

Hosp. Asst. Hari Chand, doing gen. duty at the Civil Hosp., Sialkot, was apptd. to the ch. of the Wadala Dispy., in the same dist., from the 5th Sept. 1900, relieving Hosp. Asst. Jowahir Singh.

On being relieved of the ch. of the Wadala Dispy., Sialkot dist., Hosp. Asst. Jowahir Singh was transferred to the Gobains Dispy., Rohtak Dist., on the 14th Sept. 1900, relieving Hosp. Asst. Mumraiz Khan.

On being relieved of the ch. of the Kalka Dispy., Umballa Dist., Hosp. Asst. Fatah Muhammad reverted to the ch. of the Ramnagar Dispy., Gujranwala Dist., on the 1st Sept. 1900.

Hosp. Asst. Mula Mal resumed ch. of the Farukhnagar Dispy., Gurgaon Dist., on the 1st Nov. 1900.

Asst. Surgn. E. S. Baillie was apptd. Med. Offr., Southern Punjab Ry., Bhatinda Sec., from the 12th Oct. 1900, relieving Milly. Asst. Surgn. H. W. V. Cox.

Hosp. Asst. Sat Ram, N.-W. Ry. Hosp., Saharanpur, has obtained two months' privilege leave, and was relieved of his duties on the 19th Oct. 1900 by Hosp. Asst. Khudabakhsh, transferred from gen. duty, Delhi.

Asst. Surgn. Hari Chand resumed ch. of the Civil Hosp., Ludhiana, on the 10th Nov. 1900, relieving Asst. Surgn. Udal Bhan, Imperial List.

Hosp. Asst. Jai Singh, at present serving in the Milly. Dept., is entitled to the higher rate of pay of his grade from the 1st Oct. 1900.

Asst. Surgn. Mehta Harnam Datta was apptd. to do gen. duty at the Mayo Hosp., Lahore, from the 5th Sept. 1900.

Asst. Surgn. Mehta Harnam Datta, doing gen. duty at the Mayo Hosp., Lahore, was apptd. Junior House Surgn., Mayo Hosp., Lahore, from the 11th Sept. 1900, relieving Asst. Surgn. Mir Hidayat Ullah.

Lieut. E. J. O'Meara, I. M. S., made over ch. of the duties of Supdt. of the Jhelum Jail to Asst. Surgn. Yakub Beg on the 20th Oct. 1900.

Asst. Surgn. Yakub Beg made over ch. of the duties of Supdt. of the Jhelum Jail to Capt. C. J. B. Milne, I. M. S., on the 22nd Oct. 1900.

Asst. Surgn. Har Narain held ch. of the current duties of the office of Supdt. of the Hoshiarpur Jail from the 24th to 30th Oct. 1900, both days inclusive, during the absence of Dr. D. N. P. Datta, M.D., Uncovenanted Med. Offr., on insp. duty in the dist.

Capt. C. J. B. Milne, I. M. S., made over ch. of the duties of Supdt. of the Jhelum Jail to Major D. T. Lane, M.D., I. M. S., on the 5th Nov. 1900.

Asst. Surgn. Mirza Yakub Beg, in ch. of the Jhelum Dispy., officiated as Civil Surgn. of that stn., in addn. to his own duties, from the 20th to the 22nd Oct. 1900, vice Lieut. E. J. O'Meara, I. M. S.

Capt. C. J. B. Milne, I. M. S., assumed ch. of the civil med. duties of Jhelum on the 22nd Oct. 1900, relieving Asst. Surgn. Mirza Yakub Beg.

On return from Murree, Major D. T. Lane, I. M. S., assumed ch. of the office of Civil Surgn., Jhelum, on the 5th Nov. 1900, relieving Capt. C. J. B. Milne, I. M. S.

Hosp. Asst. Lal Singh, doing gen. duty at Murree, Rawalpindi Dist., was apptd. to the ch. of the Kalanaur Dispy., Gurdaspur Dist., on the 30th Nov. 1900, relieving Hosp. Asst. Gandu Ram, who was placed on gen. duty in the Gurdaspur Dist.

Hosp. Asst. Baber Khan, doing gen. duty at Amritsar, was apptd. as a temp. arrangement, to the ch. of the Mayo Salt Mines Dispy., Khewra, Jhelum Dist., on the 3rd Nov. 1900, during the absence of Asst. Surgn. Narain Singh to attend the Septennial Prof. Exam. of Asst. Surgns. at Lahore.

On return from Lahore, Asst. Surgn. Narain Singh rejoined the Khewra Dispy. on the 8th Nov. 1900, relieving Hosp. Asst. Baber Khan.

Hosp. Asst. Ram Chand, Rawalpindi City Dispy., obtained two months' privilege leave and was relieved of his duties on the 1st Dec. 1900 by Hosp. Asst. Jaggan Nath, transferred from Attock, Hazara Dist.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

NEILSON.—At Sirdarpore, Central India, on the 7th December, the wife of W. H. Neilson, M.B., Major, I. M. S., of a daughter.

MARRIAGE.

CALVERT—MARGETTS.—At St. Paul's Cathedral, Calcutta, on 15th December, by Canon Luckman, Capt. J. T. Calvert, M.B. (Lond.), I. M. S., second son of J. M. Calvert, Esq., of Roehdale, Lancashire, to Ethel Blanche, only daughter of the late W. G. Margetts, of Rochester, Kent.

DEATH.

CURRIE.—On the 3rd December 1900, at 27, Eastbourne Terrace, Hyde Park, W., Surgeon-General George Vernon Currie, I. M. S., late 10th Bengal Lancers, son of the late Physician-in-Chief Claude Currie, I. M. S., aged 72.

ORIGINAL ARTICLES.**SOME PRACTICAL NOTES ON THE BACTERIOLOGICAL DIAGNOSIS OF HUMAN PLAGUE (PESTIS HOMINIS).^{*}**

By SHERIDAN DELEPINE, M.D.,

Procter Professor of Pathology, Owen's College, Manchester.

THE following remarks are based on experiments carried out in my laboratory with a culture of bacillus pestis kindly given to me by Dr. CALMETTE in April last. This culture was used chiefly for the purpose of repeating experiments of previous observers, YERSIN and KITASATO more especially. The culture had been obtained by Dr. CALMETTE from a case of plague in Oporto (1899), and was so virulent in April last that it was sufficient to prick the skin of a guinea-pig with a needle loaded with bacilli to produce an attack of the disease fatal in about five days. Dr. CALMETTE also gave me very valuable information in a most generous manner, and I take this opportunity of thanking him cordially.

Through the courtesy of Dr. BROWNLEE and Dr. M'CLURE I was able to examine 29 of the cases of plague under treatment in the Glasgow Fever Hospital. Medical men have much reason to be grateful to these gentlemen for the very unselfish way in which they sacrificed for the benefit of their colleagues much of the time they could so ill afford to spare.

I have also to acknowledge the kindness of Dr. BUCHANAN, who supplied me with *post-mortem* material from three of the fatal cases which had then occurred in Glasgow.

THE DISCOVERY OF THE BACILLUS.

It is unnecessary in a communication of this kind to give a systematic account of the bacteriology of plague,¹ as numerous summaries of the subject have appeared of late. Suffice it to say that in 1894 KITASATO and YERSIN, working independently in Hong-Kong, each isolated a bacillus from the buboes and blood of patients affected with bubonic plague, from the organs of rats and mice which had died of plague, from the dust (KITASATO) and from the soil (YERSIN) of houses where patients had died of plague. In addition, they had shown that the bacillus could be easily cultivated outside the body, that the disease could be produced experimentally in the lower animals by inoculation, and by feeding on cultures of the bacillus or on organs containing the plague bacillus. YERSIN had also shown that flies might be infected, and become a source of spread of the disease.

The descriptions given by YERSIN and KITASATO were very similar, but they disagreed with regard to certain points as to the distribution of the bacillus. Thus KITASATO recognised the bacillus more constantly in the blood than did YERSIN, who found it specially in severe cases. KITASATO is also of opinion that the plague microbe may be stained by GRAM's method, and causes the coagulation of milk, which is not in agreement with the results obtained

by other observers. It is, however, impossible to believe that KITASATO could have examined a number of typical cases of plague without seeing the same organism as that seen by YERSIN, for when an unsoftened bubo is examined, the bacillus is usually found in great abundance and in a state of purity. From a diagnostic point of view the most important addition which has been made to the discoveries already maintained is due to CHILDE, who in 1896 established the existence of plague pneumonia by the bacteriological examination of sputa.

Another advance useful in diagnosis was made by the discovery that plague could be produced experimentally by painting the conjunctival mucous membrane with products containing the plague bacillus, as recommended by the Bombay German Commission, or by painting the nostrils of guinea-pigs, rabbits, or monkeys, according to the method introduced by ROUX in 1898.

Finally, I should also mention the attempts which have been made to utilise the serum reaction for diagnostic purposes (WYSSKOWICZ and ZABOLOTNY, and others.)

TYPES OR VARIETIES OF PLAGUE.

It is important, from a diagnostic point of view, to be familiar with the various forms which the disease may assume. Like some other observers, I have been able to reproduce these types experimentally in the guinea-pig with the virulent culture I had at my disposal (obtained by Dr. CALMETTE from one of the cases in Oporto). These varieties depend (1) on the channel of entrance; (2) the virulence; (3) the quantity of the bacilli.

I.—THE BUBONIC TYPE.

The bubonic type is produced in the guinea-pig by infecting slight cutaneous wounds with a virulent culture of the bacillus (or by injecting subcutaneously various quantities of an attenuated culture). After slightly scarifying the skin on the inner side of one of the hind legs of a guinea-pig, I rubbed the part with a loopful of a moderately virulent agar culture of bacillus pestis. Signs of disease became evident at the end of twenty-four hours, and the animal died about five and a half days (138 hours) after inoculation. After death considerable oedema was found near the seat of inoculation in the corresponding groin, and to a lesser extent over the posterior half of the abdomen. The ooplial and superficial inguinal glands were much enlarged and suppurating, the corresponding lumbar glands were also enlarged and deeply congested. The spleen was enlarged and full of very minute tuberculous-looking lesions (these contained a very large number of plague bacilli). The liver was large and unequally congested. The lungs were intensely congested, and contained eight or ten large tuberculous-looking masses, situated chiefly under the pleura. These pseudo tubercles were surrounded by a wide zone of deeply congested, partly hemorrhagic tissue (secondary plague pneumonia). All these lesions resembled those produced in the guinea-pig by the bacillus mallei. The right side of the heart was much distended with dark blood. Most of the lymphatic ganglia, other than those already mentioned, were swollen and more or less congested. Typical plague bacilli were demonstrated by microscopical examination in suppurating inguinal glands and the oedematous tissues

^{*}(Extracts from an Address delivered on the occasion of a demonstration given to the Pathological Society of Manchester, and sent to the *Record* for publication.

round them—the spleen, liver, lungs, and blood of the heart. They were most abundant on the spleen and glands. Cultures revealed, in addition to the plague bacillus, the presence of the staphylococcus pyogenes aureus in the inguinal glands, but not in the other organs. There were only two colonies of staphylococci amongst a very large number of colonies of the plague bacillus. In one of the agar cultures they were also present in the bouillon cultures. Animals inoculated with these impure cultures all died of plague, but in all their organs the plague bacillus and the staphylococcus were found together, the staphylococcus having apparently multiplied more rapidly than the plague bacillus. Judging by the relative number of colonies obtained, the spread of staphylococcus had been favoured by the presence of the plague bacillus, but the disease produced by the mixed infection had all characters of plague.

II.—SEPTICÆMIC PLAGUE.

This was produced by injecting the bacillus under the skin. One-sixth of an agar culture of a slightly attenuated type, which had been kept in the laboratory for about six months, injected deeply into the thigh, produced the death of a guinea-pig in sixty-six hours. With an agar culture isolated seven days previously from a rapidly fatal case, $\frac{1}{10}$ th of the culture was fatal in less than forty-eight hours. One mouse was killed in less than twenty-four hours by $\frac{1}{10}$ th, and another in forty-five hours by $\frac{1}{10}$ th part of the same culture. All these cases differed from the first case described, in that the enlargement of the glands near the seat of inoculation, though distinct, was less marked; these glands were of a deep red colour and firm. Nearly all the other lymphatic glands were deeply congested. The spleen was large in all cases, but showed no tuberculous-looking lesions, the lungs were either congested or pale, but generally œdematous. The local œdema was variable, very extensive and hæmorrhagic in one case, but comparatively slight in the others. In all these cases the bacillus was found abundantly in the blood of the heart, spleen, liver, and lymphatic glands.

III.—PULMONARY PLAGUE.

This was produced according to ROUX's method by applying the bacilli with a small, soft, camel-hair brush to the nostrils of guinea-pigs. In one case I used an agar culture which had been kept for nearly five months in a cupboard at the temperature of the laboratory. For another case I selected an agar culture I had isolated nine days previously from a fatal case. In both cases there was evidence of general discomfort before the end of the third day, and both animals died between the fifth and sixth day after the painting of the nostrils.

There was considerable swelling of the integuments round the nostrils and of the upper lip; the trachea contained mucopurulent exudation, slightly tinged with blood in one case. In both cases the lungs were large, œdematous, generally pale, their surface was slightly uneven owing to collapse of small portions of parenchyma immediately under the pleura; there were also small ecchymoses under the pleura, and in one case several larger hæmorrhagic foci. There was, in fact, well-marked disseminated broncho-pneumonia, and the bronchial and cervical lymphatic ganglia were intensely congested.

Some of the cervical glands contained hæmorrhagic foci; these were almost black; the most affected glands were surrounded by œdematous blood-stained connective tissue. The other organs presented the same appearances as in septicæmic cases. Plague bacilli were easily demonstrated in the tracheal mucus, the lungs, the blood of the heart, the cervical glands, and the spleen. The most interesting feature of plague pneumonia is that it can be produced with bacilli, the virulence of which is so attenuated that they do not produce the disease by subcutaneous inoculation.²

IV.—GASTRO-INTESTINAL FORM.

This was introduced in some mice, of which I placed two in a cage which had been occupied by two guinea-pigs that had died of plague, and two others in a clean cage, their food being mixed with some of the excreta of a guinea-pig also dead of plague. The first two mice died in about ninety-six hours; the last two died in about seventy-two hours. They all seemed to have succumbed to some mixed form of infection; I could recover the bacillus in one case only.

The experiments of YERSIN and KITASATO showed from the first that infection could be produced by ingestion of infectious products. KITASATO was even able to find the plague bacillus in the contents of the intestine.

It is sometimes argued that animals fed on material containing plague bacillus are not infected through the alimentary tract, but through the nose and air passages. BATZAROF has, however, produced the disease by depositing in the mouths of guinea-pigs portions of infected organs, care being taken that the nostrils were not contaminated, or the buccal mucous membrane wounded.

A gastro-intestinal form of plague is not usually recognised as a clinical form of human plague.

V.—CUTANEOUS FORM.

I have not been able yet to produce localised cutaneous lesions, not followed by lymphatic extension, giving rise to the bubonic type of the disease. It is said that in the human subject pustules may occasionally occur without formation of buboes. The contents of such pustules are said to be rich in bacilli. Usually, however, infection through the skin is followed by the production of buboes, and in such cases it is not always possible to recognise any cutaneous lesion at the primary seat of infection.

From the preceding short summary, it will be seen that the three chief types of human plague—that is, the bubonic, the pulmonary, and the septicæmic—correspond to three types of infection, the first two being determined by the channel of infection, the last being capable of arising whenever the resistance of the tissues is considerably reduced, or the virulence or quantity of the bacilli very great. It will be noticed that in all cases the lymphatic glands are liable to be affected, but that typical inguinal and axillary buboes are produced chiefly in connection with cutaneous infection of the extremities, whilst cervical buboes may be produced as a result of infection of the skin of the head and neck, or of the nasal or buccal mucous membranes. In the case of infection through the air passages the most characteristic bacteriological feature is the presence of plague bacilli in the bronchial and nasal discharges. Finally, in the rapidly

fatal forms, without any marked localisation of lesions, the blood contains a large number of bacilli. In the experiments recorded above, the blood was invariably found to contain bacilli easily demonstrable by direct microscopical examination and cultivation, whatever mode of infection had been adopted. In the cases of mixed infection which I produced artificially, the plague bacillus could be easily separated from the associated cocci.

DIAGNOSIS OF PLAGUE BY EXPERIMENTAL INFECTION.

Two methods of infection may be used for diagnostic purposes—

1. *Subcutaneous inoculation*, for which mice and guinea-pigs are especially suitable.

2. *Infection through the air passages*, obtained by painting the nostrils with the products under investigation. This method is specially suitable when products of low virulence are under investigation—as, for instance, the pus of suppurating buboes. (In suppurating buboes the plague bacilli, when found, are usually in a state of degeneration and frequently of low virulence.) For this method of experimental infection the guinea-pig is specially suitable.

MICROSCOPICAL EXAMINATION.

I have described the experimental methods in order to make clear the distribution of the bacillus. In practice, however, the first steps to be taken would be to make a microscopical examination—

1. Of material obtained from a bubo or from the oedematous tissue surrounding it.
2. Of blood obtained from the tip of a finger or from the lobe of the ear.
3. Of the expectoration in suspicious cases of pneumonia.

In ordinary cases such an examination presents no difficulty, and can be carried out very rapidly. Almost any of the aniline dyes in common use can be used for the purpose of staining cover-glass preparations of material obtained with the hypodermic syringe from buboes or their neighbourhood. Freshly-prepared aqueous solutions of methyl violet, aqueous solutions of methylene blue, or LOEFFLER'S blue may be used. Carbol-thionin blue or diluted carbol fuchsin have given me the best results. Carbol fuchsin has, however, a tendency to stain too deeply the degenerated cells and products among which the bacilli are found; and to obtain good preparations showing well the bipolar stain of the bacillus, I treat the film for about five seconds with 15 per cent. solution of sulphuric acid, which is washed off rapidly; carbol fuchsin is then dropped on the film; after a contact not exceeding two or three seconds, the stain is thoroughly washed off. The bacilli do not stain by GRAM'S method, but a little of the material surrounding them remains slightly stained.

CULTIVATION OF THE BACILLUS.

This presents usually no difficulty, except in the case of sputa. Ordinary alkaline peptone bouillon agar seems to me the best medium to use in ordinary cases, at any rate I have not found that with the blood or tissues of animals affected with plague it was possible to obtain typical cultures more rapidly on any other medium. On agar at the temperature of the body minute colonies are already visible eight or ten hours after inoculation of the medium.

Neither blood serum, glycerine agar, nor gelatine agar present any advantage. (In separating the plague bacillus from other microbes in sputum, advantage may be taken of the fact that the plague bacillus grows quicker at a low temperature than other pathogenic bacteria; this method of cultivation has been recommended to me by Dr. CALMETTE.) Growth is also rapid in ordinary alkaline peptone bouillon; if care be taken not to disturb the bouillon, the growth in that medium is characteristic, bacillus grows near the surface, and adheres to the sides of the tube, near the surface of the fluid, forming a whitish flocculent ring. The fluid remains clear so long as the fluid is not disturbed, but the slightest motion causes flakes of bacilli to fall, and for a time the fluid seems cloudy; this probably accounts for the turbidity noticed by KITASATO. The production of involution forms by cultivation on salted agar, as recommended by HANKIN and LEHMANN, is not always sufficiently rapid to be very helpful when rapid diagnosis is wanted. The same objection may be offered to HAFKINE'S method of cultivation on buttered bouillon; the appearances of stalactite culture are, however, very striking. I have not found that milk was coagulated by this bacillus.

PRECAUTIONS AGAINST LABORATORY PLAGUE.

I cannot conclude these very cursory remarks on the bacteriological diagnosis of plague without pointing out the dangers of the slightest carelessness in such work.

Animals under observation should be kept in a separate room, in glass jars covered with fine gauze weighted lids. For additional security the jars should be placed in a larger case, constructed very much like a meat safe, but entirely made of metal and glass (iron frame, sides entirely closed by fine wire gauze, glass doors, with well-fitting frame.) This outer case should entirely prevent rats, mice, or even insects, from having access to the animals or their food.

As a further precaution, this case should be placed above a large metal tray easily disinfected, and supported above the floor by a metallic stand. These precautions are necessary to prevent accidental infection of rats and mice, and of various parasites which usually find their way wherever animals are kept.

The skin of animals which have to be dissected should be well soaked with an acid solution of perchloride of mercury (1 in 500) before the animal is opened, and the dissection should be made over a tray containing some of the same solution. The body and organs which are not preserved in suitable preservative fluids should at once be destroyed by fire. Laboratory attendants should not be allowed to touch any infected animal or products before these have been thoroughly disinfected. The bacteriologist may take the risks of his own work, and being well acquainted with them, is in a position to avoid them, at any rate it is his duty to face them; the case is not the same with regard to his assistants, and more especially to those that are young and untrained. The comparatively great number of deaths attributable to plague infection in the laboratory or the *post-mortem* room, which have occurred during the last three or four years, clearly indicates that an exceptional amount of care is needed in work of this kind.

In these short notes I have not attempted to give a complete account of methods; I have simply tried to give such information as is not already easily accessible to all through the many excellent summaries of the subject which have appeared of late.

1 An excellent review of the subject will be found in Netter's short but masterly treatise on *La Peste et son Microbe*, Paris, 1900.

2 Batzaroff *Annales de l'Institut Pasteur*, 1899, p. 286.

DISEASE OF THE FALLOPIAN TUBES, WITH SPECIAL REFERENCE TO SPECIFIC INFECTION.*

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No structure of equal pathological interest and of such vital clinical importance to the medical profession was so long and so persistently neglected as the fallopian tube. In the older medical literature it received only the briefest mention, and then the reference was most superficial. Little attention was given its anatomy or physiology, while its histology was wholly neglected. Nothing was known of its pathology, and no symptoms were attributed to diseases of this important structure. What a marvellous development in pathological interest and clinical importance during recent years! Careful research will disclose the fact that generations ago the clinicians described disease in the fallopian tube, but through lack of both anatomical and pathological precision their teaching made practically no modification in either the medical thought or practice of the day.

Perhaps the first well-authenticated account of a discussion of the fallopian tube and its diseases was in the year 1665, and may be well epitomized in this statement "that occlusion of the tube is one of the most fruitful causes of sterility." Nearly a century later, in 1742, JOHANN WEITBRECHT, the great anatomist of St. Petersburg, described the obliteration of the tube in a woman with one child and who was subsequently sterile. In 1766 ASTNIC gave considerable attention to the fallopian tube, and afforded perhaps the first accurate description of its diseases. He clearly describes hydrosalpinx, pyosalpinx and tubal pregnancy. But, as frequently happens, his teachings seemed for a time to be forgotten, or at least neglected. Nothing new on this subject is found in medical literature for nearly a century. In the writings of that able French observer, COLUMBAT, as translated by CHARLES D. MEIGS in 1845, there is found only a brief mention of this organ, and he practically describes only one disorder of the tube—atrophia. Investigation was imperfect, reports contradictory, and knowledge of slow growth.

In 1854 CHARLES D. MEIGS published his brilliant work. He likewise refers to atresia of the tube and to its effect in producing sterility. He speaks of a most remarkable death from what would to-day be diagnosed as a case of pyosalpinx. Acute observer that he was, scholarly and progressive in his field, yet he devoted only five pages to the tube, including its anatomy, physiology, pathology, clinical history and methods of treatment. T. GAILLARD THOMAS published his work on diseases of women in 1869. He was a bright light in his special field for nearly a generation, and yet he gives only two pages to a discussion of the tube and its diseases. In brief, an examination of older medical works and journals of all kinds, home and foreign, will show absolute want of literature on this important subject.

The medical man of to-day is well informed on all phases of disease of the tube and of the different views of tubal disease, its origin, pathology and methods of

treatment. The causes of inflammation are numerous. When the tube is considered as a continuation of the structure of the uterus, the cause of the inflammation is easily understood. Any cause which may produce inflammation of the uterine structure may, by simple extension, cause an inflamed tube. Disease of bacterial origin may readily affect the contiguous structure. Among the exciting causes are those producing endometritis or metritis, direct injury, sudden checking of the flow, pelvic hyperæmia, infection with staphylococcus streptococcus and gonococcus. Of these causes, gonococcus infection is most frequent and important.

Authorities differ widely as to the importance of the gonococcus as an etiologic element in production of tubal diseases. The question regarding this feature is important and difficult to determine. All will agree that the gonococcus is a frequent cause and should demand most earnest attention, and that the profession must be alive to prevent a trouble which, when established, we are so powerless to cure. We all too often meet cases like the following: Young lady of good family and personal history, with menstruation regular and painless, who marries; wedding trip is taken, and the bride returns home an invalid. She suffers from pelvic distress, and all the usual symptoms of specific infection are plainly evident.

A latent gleet in the male may be the cause of a fresh infection in the mucous membrane of the vagina. There is much speculation in regard to the gonococcus of NEISSER as to its possible origin, the manner of its acquiring specific functions, how it may be possible by culture methods to rob it of its specific character, etc. The infectious character of the germ and its peculiar action on mucous membrane is as yet imperfectly understood. The germ is cultivated in laboratory and changed from media to media until it is theoretically sterile; yet, deposited on mucous membrane, its growth is luxuriant. Only a few germs may be present, yet the development is of almost incredible rapidity. A woman with latent gonorrhœa for years imparts a virulent ophthalmia to her new-born child. This organism has a wondrous grasp upon life, so wondrous, in fact, that one is almost ready to accept the doctrine of NOEGGERATH, "once infected, always infected;" at least one is ready to accept this as a safer rule than that gonorrhœa is no more to be thought of than a common cold. Practical experience and bacteriologic research agree that the gonococcus is tenacious of life in the human tissues.

BUMM transplanted the twentieth generation into healthy mucous membrane and produced a virulent gonorrhœa. WARREN states that suppurative inflammation of the tube is largely due to the gonococcus. BERNUTZ's investigation coincides in the opinion. The findings of NOEGGERATH and SANGER are along the line—the two latter find pyosalpinx in 38 per cent. of women suffering from gonorrhœal infection.

GOEL, after an extensive research, says he was able to discover the gonococcus after a latency of six years. NEISSER in 143 cases, extending over a period varying from two months to eight years, found the germ in 80 cases. The observation of WERTHEIM is in the same direction. He reports the finding of the gonococcus in a chronic salpingitis of two years' duration. NEISSER

* Presented to the Section on Obstetrics and Diseases of Women, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., and sent specially to the *Record* for publication.

insists upon the value of microscopic examinations, and makes a strong point of the necessity of frequent tests. Some observers failing in this have much under-estimated the frequency of gonorrhoeal infection in diseases of the tube. One must not be satisfied with one or two examinations, but must insist upon repeated careful tests, and the perseverance will frequently be rewarded by the establishment of a positive diagnosis. The failure of some observers to frequently discover this germ in tubal disease is to be attributed to either faulty methods or a lack of perseverance in making investigations. While this germ is practically unlimited as to time, it is very circumscribed as to tissue invaded. It is limited to usually the epithelial layer. That it may occasionally affect the deeper tissues is denied, yet this is undoubtedly very rare. The cervix stands second in point of the pregnancy of infection and first as to chronicity. By simple extension the tube becomes diseased. The gonococcus finds the epithelial layer of the mucous membrane its favorite habitat, and here multiplies, with unaccountable rapidity. There its irritating effect soon becomes manifest in increased blood-supply, oedema, and an enormous leucocytic exudate, followed by round-cell infiltration. This infection may lead to a simple salpingitis or to suppurative disease of the tube, depending on the virulence of the germ and the antimicrobial power of the tissues. There are various modes of infection—sexual intercourse, infection by use of douche tubes, by the careless use of gynecological instruments and by carelessness in making examinations. Has sufficient emphasis been placed on this as a cause of pyosalpinx, confessedly a most serious condition? Has the profession made clear and positive its position in regard to the baneful far-reaching effect of this infection on the health and life of the women of our land?

This is a serious question, and one not to be pushed lightly aside, but demands our careful attention. That the profession has not fully appreciated the serious far-reaching effect of this infection I fully believe. As one of the results of this apathy and indifference, is it any wonder that the laity regard gonorrhoea as a trivial affection? At the meeting of this Association at Columbus, Ohio, a committee was appointed to investigate and report on ravages produced by syphilis on women; a similar committee should be appointed to investigate and report on the baneful effects of gonorrhoea on the female. While syphilis slays its thousands, gonorrhoea slays its tens of thousands. When fully impressed with its true character, the conscientious physician will do all in his power to prevent a trouble which, when fully established, he is powerless to cure. Prevention is the glory of modern medicine—certainly here is a fruitful field for its exercise.

I am convinced that the profession is not impressed with the magnitude of this evil, yet the truth is taught with more or less clearness by leading American authorities. KELLY, GARRIGUES, PENROSE, BALDY, PRICE, SKENE, DUDLY and HENROTIN mention the gonococcus as an important agent in pyosalpinx. I have had correspondence with a large number of physicians of Iowa and adjacent States, and find there is considerable diversity of

opinion; yet the majority place the gonococcus as an important agent in pyosalpinx. From facts collected from fifteen of the chief cities of Iowa, I find 70 per cent. the average estimate of the cases of tubal disease due to gonorrhoea. From correspondence with physicians in small towns and rural districts, I learn of the infrequency of tubal disease in females. An examination of the records of three hospitals doing a good share of work shows a large number of cases of suppurative disease of tube of specific origin. Individual experience is only of value in determining a proper understanding of this question. In my experience during the last year I find 80 per cent. of the cases due to specific infection.

I am of the opinion, therefore, that the importance of gonorrhoea in causing tubal disease has not been properly emphasized; that the question is a serious one and worthy of our careful investigation; and that, as earnest physicians imbued with the idea of prevention, we should make ourselves felt in behalf of these unfortunate sufferers.

CONTAGION: ITS MEANING AND ITS LIMITATIONS.*

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THERE is perhaps no question in medicine upon which the profession is so much at sea as that of contagion. There has been so much quibbling about the meaning of the word contagious, and so many hairsplitting distinctions made between it and the word infectious, that the general reader of medical literature has become bewildered and is really at a loss to know, when he encounters the words, what is actually meant by them. It may be well, therefore, to again take soundings upon the entire subject, and to seek the channels of thought which can be used by all of us, so as to again bring our observations within reach of common intelligence.

The word contagion is derived from the Latin word *contingere*, which means to be in contact with, to touch. As applied to disease it conveys the idea of communicability from one person to another, from a human being to an animal, from an animal to a human being, or from one animal to another, by contact, without an intermediate agency or host. The Century Dictionary defines it as follows:—"First, infectious contact or communication; specifically and commonly the communication of disease from one person or brute to another. A distinction between contagion and infection is sometimes adopted, the former being limited to the transmission of a disease by actual contact of the diseased part with a healthy absorbent or abraded surface, and the latter to transmission through the atmosphere by floating germs or miasmata. There are, however, cases of transmission which do not fall under either of these divisions, and there are some which fall under both. In common use no precise discrimination of the words is attempted." WEBSTER, in defining the word contagion, quotes from DUNGLISON as follows: "The act or process of transmitting a disease from one person to another by direct or indirect contact." For a second definition he gives

* Read before the Philadelphia County Medical Society, 14th December 1899, and sent to the *Record* for publication.

"That, which serves as a medium or agency to transmit disease; pestilential influence." In illustration of this meaning, he quotes from SHAKESPEARE the following lines: "And will he steal out of his wholesome bed to dare the vile contagion of the night." In his definition of the word contagious he says: "First (Med.), communicable by contact: catching: as a contagious disease; second, containing or generating contagion: pestilential: as contagious air; third, spreading or communicable from one to another." Under synonyms he says: "Contagious, infectious. These words have been used in very diverse senses; but in general a contagious disease has been considered as one which is caught from another by contact, by the breath, by bodily effluvia, and so on; while an infectious disease supposes some entirely different cause acting by a hidden influence, like the miasma of prison ships, of marshes, and so on, affecting the system with disease. This distinction, though not universally admitted by medical men as to the literal meaning of the words, certainly applies to them in their figurative use. Thus we speak of the contagious influence of evil associates; the contagion of bad example; the contagion of fear, and so on, when we refer to transmission by proximity or contact. On the other hand, we speak of infection by bad principles, and so on, when we consider anything as diffused abroad by some hidden influence." GOULD, in his Medical Dictionary, defines contagion as "the process by which a specific disease is communicated between persons either by direct contact or by means of an intermediate agent." Infection he defines as "the communication of disease germs or virus by any means, direct or indirect." THOMAS' Medical Dictionary gives the definition of contagion as "the communication of a disease by contact or by inhaling the effluvia from one already affected; often used as synonymous with infection." Infection he defines as "the communication of a disease by personal contact with the sick, or by means of effluvia arising from the body of the sick, contagion. The transmission of disease from one individual to another of a different class. The term is sometimes used as synonymous with the contagion or agent by which a communicable disease is conveyed." The word infectious he defines as "contagious; corrupting; that may be easily communicated; capable of transmission from one person to another by contact or by being conveyed through the atmosphere." The word contagious he defines as "a term applied to diseases which are spread by contagion or communicated." In DUNGLISON'S Medical Dictionary the word contagion is defined as "transmission of a disease from one person to another by direct or indirect contact. Also at one time applied to the action of miasmata arising from dead animal and vegetable matter, bogs, fens, etc. Contagious diseases are produced either by virus or contagion capable of causing them by inoculation, as in small-pox, cow-pox, hydrophobia, syphilis, etc., or by miasmata proceeding from a sick individual, as in plague, typhus gravior, measles, etc. Contagion and infection are generally esteemed synonymous. Frequently, however, the former is applied to diseases not produced by contact, as measles, etc., while infection is used for those that require positive contact, as itch, syphilis, etc. Diseases which are only produced by con-

tagion are said to have their origin in specific contagion, as small-pox, cow-pox, syphilis, etc. Those produced by contagion, and yet supposed to be sometimes owing to other causes, are said to arise from common contagion, as typhus, cynanchoe, protidea, etc." The definitions given in the dictionaries are somewhat obscure, and all savor of old-time ideas about the etiology of disease. All, however, agree on certain points, namely: First, that the word contagion has a broader meaning than the word infection; and secondly, that the words contagion and infection may be used synonymously. In current literature we frequently find the position of the two words reversed, and a limited meaning given to the word contagion and a broad meaning to the word infection. *

The word infection is derived from the two Latin words *in* and *facere*, which mean to carry in something, to make in something. As originally applied, the word meant the carrying of disease from one person to another by a force extraneous to both the disease and the persons giving and receiving the disease. It was principally used to convey the thought that diseases which had their source in miasmatic conditions were wafted by the air, and thus communicated to all persons breathing that air: for example, as malaria was carried by the wind from swamps. It had a shade of meaning which well suited certain diseases to which the word contagious could not properly be applied.

In the light of the germ-theory of disease, we are in a much better position to formulate a clear-cut idea of what is meant by contagion, and wherein contagion differs from infection. We see by it that the key to the true application of the two words is really to be found in their literal meaning and original application. In the adjective form, other synonyms of contagion are: Communicable and catching. Communicable and catching are generic terms, and convey the broad idea of communicability without any modification as to method or process by which the end is accomplished. Contagion and infection are specific terms, and convey modified ideas of communicability, each peculiar to itself. Contagion conveys the idea of communicability by contact, direct or indirect; the chain of communication between the person having the disease and the person receiving it being unbroken. Infection conveys the idea of communicability through an intermediate agency outside of both the person who has the disease and the person to whom the disease is conveyed. The essential features of a contagious disease are:—

- (1) A living organism, the parasitic existence of which in a human being or animal creates a disease.
- (2) The communicability of that organism from one human being to another, from a human being to an animal, from an animal to a human being, or from one animal to another.
- (3) Immediate or mediate contact between a person or animal suffering from the disease, and a person or animal free from it.
- (4) A limited environment, under which communicability is operative.

The essential features of an infectious disease are :—

(1) A living organism, the parasitic existence of which in a human being or animal creates a disease.

(2) The communicability of that organism to human beings and animals.

(3) An intermediate agency, through which communicability between two hosts, or from a non-parasitic habitat to a host, can be established.

The difference between the ideas of contagion and infection is :—

(1) That, in contagion, the chain of contact between the person giving off the disease and the person receiving it must be complete and unbroken, whilst in infection the chain of contact may be broken by an intermediate agency, or host.

(2) That, in contagion, the environment, under which communicability is operative, is limited ; whilst in infection the environment, under which communicability is operative, is general.

It is true that, in contagion, the contact may be mediate, that is, through fomites, and that fomites in a sense constitute an intermediate agency ; but fomites differ on important points from the intermediate agency of infection. The intermediate agencies of infection usually are earth, air, and water. Fomites cannot become a soil for the reproduction of organisms which produce contagious diseases, and have no inherent power of transferring them from one host to another. They can only give them shelter until some extraneous force conveys them into the proximity of a prospective host, or until chance brings such a host into their vicinity. The intermediate agency of infection, on the other hand, can become a soil for the reproduction of the organisms which produce infectious diseases, and may possess inherent forces with which to convey such organisms to prospective hosts.

In the category of contagious diseases I would place small-pox, measles, scarlet fever, roseola, influenza, colds of various kinds, tonsillitis, chicken-pox, whooping-cough, mumps, typhus fever, diphtheria, plague, tuberculosis, leprosy, syphilis, erysipelas, glanders, gonorrhœa, septicæmia, parasitic skin diseases and contagious conjunctivitis.

In the category of infectious diseases I would place cholera, typhoid fever, the malarial fevers, yellow-fever, dengue, tetanus, and, possibly, pneumonia and cancer.

That all of the diseases here enumerated are communicable can scarcely be doubted in the present light of medical science. It has not yet been demonstrated in all that a living organism is the active and essential cause ; but we can deduce by analogy from those in which a living organism has been found to be the active cause to those in which no organism has as yet been identified as the active cause, that a living organism must be the active and essential cause in all. Small-pox, measles, scarlet fever, roseola, chicken-pox, whooping-cough, mumps, typhus fever, diphtheria, plague, syphilis, erysipelas, glanders, gonorrhœa, septicæmia, parasitic skin diseases, contagious conjunctivitis, cholera, typhoid fever, yellow-fever and dengue are admittedly communicable, upon clinical evidence alone. In tuberculosis, diphtheria, erysipelas, gonorrhœa, septicæmia, cholera and typhoid

fever, the organism which produces these diseases has undoubtedly been identified. A living organism as an active cause having been discovered in these, some of which are admittedly contagious, it may be logically assumed that a similar living organism as an active cause must exist in the others. Like causes produce like effects, and like effects must have like causes. Pursuing this line of thought to its logical conclusion, we arrive at the proposition that communicability is predicated upon life, and that all diseases which are found to be due to living organisms are consequently communicable. What can thus be reasoned out has already been worked out in all detail in the laboratory. In diphtheria and tuberculosis, not only have the organisms which produce these diseases been discovered, but every step in the process of communicability has been demonstrated. In one of these, diphtheria, the clinical evidence has been in favor of communicability ; in the other, tuberculosis, the clinical evidence, as usually interpreted, has generally been against communicability. In both, however, the same fundamental law has been found to exist, namely, that they are due to living organisms, and that those organisms are communicated from one host to another under certain well-fixed laws and conditions. It is from the knowledge that we have gathered about tuberculosis and other diseases in the laboratory, together with the clinical knowledge that we possess about these and other diseases, that we are justified in placing diseases in the category of communicable diseases which have not yet been demonstrated to belong there, either at the bedside or in the laboratory.

Into which category a communicable disease should be placed, whether that of contagious or infectious, must for the present remain, to a very great degree, a matter of conjecture. When the organisms which produce the different diseases have all been identified, and their life-histories studied, it can be done with mathematical accuracy. For the present, the order in which I have placed them seems to me to correctly represent our knowledge about them as gleaned at the bedside and in the laboratory. Small-pox is a typically contagious disease ; malarial fevers are typical infectious diseases. Between these there are shadings in both directions. If we bear in mind, however, the essential features of contagion and infection, and the essential difference between them, as shown us by the typical diseases representing them, we cannot go far astray in placing all communicable diseases where they belong. I have placed pneumonia and cancer among the infectious diseases rather than among the contagious, for the reason that the environment under which communicability is operative seems to be general instead of circumscribed. When pneumonia is prevalent in a community, it seems to strike down people in all quarters, irrespective of contact ; and cancer seems to be distributed evenly among all classes and in all parts of a community.

A most important point in the question of contagion is that of limitation. Whilst there are certain laws to which all contagious diseases subscribe, every contagious disease has laws to which it alone is amenable. These laws are dependent upon the idiosyncrasies of the organisms producing the diseases, and upon the soil

which the organisms require for their development and the completion of their cycles of life. For example, whilst small-pox and tuberculosis are both contagious diseases, and subscribe in all points to the essential features of a contagious disease, they differ very materially in the intensity of their contagion. The organism which produces small-pox finds a congenial soil very readily, runs through the cycle of life very quickly, and exhausts the soil upon which it feeds in a very brief period of time. The organism which produces tuberculosis is implanted with considerable difficulty, runs through its cycle of life more slowly and exhausts the soil upon which it feeds most tardily. The organism which produces small-pox escapes from its host almost immediately after the development of the disease and goes out in profuse numbers from every part of the body, whilst the organism which produces tuberculosis does not escape from its host until the disease has been in progress for a long time, and escapes by a single avenue. In small-pox the deciduous organism is at once set free in the atmosphere surrounding the host, polluting it, and making it intensely infectious, whilst in tuberculosis the deciduous organism is protected by broken-down tissue, with which it has to be carried into the new host, and, therefore, cannot pollute the atmosphere around the host to a very intense degree. The difference in the intensity of contagion between small-pox and tuberculosis is, therefore, very great, and the phenomena by which contagion manifests itself are very different. The essential features of a contagious disease, however, exist in both, and are identically the same. In both we have a living organism, the parasitic existence of which produces the disease; in both we have communicability of that organism; in both contact, direct or indirect, is essential to communicability; and in both the environment under which communicability is operative is limited.

What is true of small-pox and tuberculosis in regard to the individuality of contagion is true of all communicable diseases. Certain groups resemble each other closely, but even in such groups individual members have marked peculiarities. The exanthemata resemble each other closely, all being intense in their contagion and running rapid courses. Leprosy resembles tuberculosis; there is a similarity between the acute diseases of the upper air-passages; and there is a very close resemblance in the mode of distribution of some of the infectious diseases. As a rule, the intensity of contagion or infection is in proportion to the profuseness with which the organism is given off from a host, and the degree to which the deciduous organism is encumbered in its ingress into a new host. Where the deciduous organism is given off through a single channel and is embodied in

broken-down tissue or newly developed tissue, contagion is apt to be mild and erratic.

For preventive purposes a correct classification of communicable diseases, and a careful study of the idiosyncrasies of each disease are of great importance. With contagious diseases the most important factors to be considered are the host and the prospective host; whilst in infectious diseases the most important factor is the intermediate agency of communication. In contagious diseases we should seek to make the host sterile, and the prospective host immune; in infectious diseases we should seek to make the intermediate agency sterile. For example, in small-pox and tuberculosis we have to do first with the person suffering from the diseases; and second, with the persons who may be exposed to the disease; whilst with cholera and typhoid fever we can accomplish most by looking after the water and food-supply or after the drainage of our habitations. With all contagious diseases the prospective host is as important a factor from a preventive point of view as the host himself. With small-pox, immunity can be established by vaccination, and there is promise in the laboratory work of the future that similar results may be obtained with all the intensely contagious diseases. With tuberculosis and some of the more mildly contagious diseases partial immunity can be established by a maintenance of a healthy nutrition. Could all the hosts of contagious diseases be made sterile, or isolated so effectively as to make contact impossible, no new set of hosts could come into existence. In practical life such a condition of things is impossible of attainment; and it therefore becomes most important to work at the other end of the line and reduce the number of available hosts to a minimum. With infectious diseases isolation is futile, except in so far as it will aid in preventing the infection of the intermediate agency of distribution. If every typhoid-fever patient could be isolated, and his discharges sterilised, a time would come when all water-supplies would likewise become sterile, and the germs producing the disease would no longer be distributed. Better results can, however, be attained by at once sterilising all water-supplies.

In order to be able to fully understand the subject of contagion, one must first learn to realize that it is a complex one. With a single idea based upon what can be observed in small-pox and other intensely contagious diseases, one is bound to become stranded in studying the subject. It is a great and an important subject, and we are as yet merely at its threshold. To gain access to all the secrets which it will reveal to us will require long and tedious study in the laboratory, and careful conscientious observations at the bedside, with a mind unfettered by traditions and receptive to new ideas. What we know gives us a good hypothetical basis; what we have yet to learn will give us mathematical accuracy.

A MIRROR OF PRACTICE.

AN OBSCURE CASE OF POISONING.

By G. E. OLAXTON, L.R.C.P. & S., EDIN.,

Medical Officer, Plague Camp, Bandikui.

On the 18th, by the 80 down, a party of well-to-do cloth merchants, consisting of four women, three men, and two children, travelling from Mauli to Hyderabad, Sind, and holding tickets from Ajmere to Muttra, were admitted to this camp, as one of the party, BHOJA, son of THAU, *etat* 30, a well-developed man, had a temperature over 101°, a rapid pulse, and was quite unconscious. He had no enlarged glands, and his heart and lungs were normal. A jalap and calomel purge was administered on admission, which operated; a diaphoretic mixture ordered, and a sleeping draft given at bedtime. His urine was suppressed, but the application of hot dry flannels over the region of the bladder, and placing his feet in hot water, had the desired effect.

On the 19th the patient was better in every respect, his temperature kept below 100°, his pulse rate was reduced in frequency, he could speak, and took the milk diets ordered him. He complained of dryness about his throat, his tongue was dry, though his skin was moist, and he had a slight difficulty with his expectoration. An embrocation consisting of turpentine and chalmogra oils was rubbed on his chest, and treacle and vinegar relieved his expectoration: the juice of oranges abated his thirst somewhat. Towards evening his temperature rose, and as he was restless, 15 grains of pot. brom. and 10 grs. of sod. salicyl. was given, but this was rejected, and by 12 (midnight) he was quite delirious.

On the 20th, about 2 A. M., I was awaked by his shouts, and when I saw him he was crying out for water! water!! water!!! I learnt he had already drunk an immense quantity, but this seemed to aggravate instead of abate his thirst, and he was very anxious his feet and head should be both kept cool. As he proved so troublesome to all around, he had to be tied to the bed. It was impossible to administer medicines by the mouth, for he would shut his lips, clench his teeth, and neither persuasion nor threats would induce him to take these. As talking only excited him, and the presence of any one near by induced this, he was ordered to be kept quiet, and I forbade anyone to pay any heed to his ramblings. At first I thought his mind had become affected, and that he was a fit inmate for an asylum; but later on in the day suspicions were entertained that this was most likely an obscure case of poisoning, and on making careful enquiries from the party with him, I learnt he had been treated in Ajmere by some Vaid. Many of the symptoms—the delirium, thirst, dryness, and suppression of urine—would lead one to suspect some preparation of the natural order solanaceæ had been given in excess. His pupils were normal, would react to light, and when a lantern was brought near him, he was attracted by the light in much the same manner as a person suffering from mental unsoundness. His talk was extravagant, and he harped on the subject of money. To secure the soporific and

antispasmodic action of drugs, onion juice and asafœtida mixed with sweet-oil was rubbed over his abdomen, in the hope these would become absorbed (endemic method). Opium was placed in a chilum, but this had to be done secretly, for he had an idea that churru was being thus administered, and it was not till he had been fully assured this drug was not used that he attempted to smoke the tobacco. By 4 P.M. he was very much better, his talk was more rational, he was not so easily excited, and an hour later he passed his urine, and this the patient informed me was high coloured and scanty. By 6 P.M. he was inclined for food. Milk and jellabies were ordered, and with them was mixed 10 grains of pulv. ipecac. co. The patient had a fair night's rest, he did not disturb those round him, but slept by fits and starts. On this day he dreaded seeing a bottle of any kind, and would wish to carefully inspect the water before he drank it. The endemic application was continued steadily at intervals.

On 21st patient was much better; he still complained of great thirst (this and want of sleep, he it observed, have been the most prominent symptoms throughout); he complained of great internal heat as though the intestines were being burnt, and declared he would die if not relieved; his body was cool to the touch, his tongue not so dry as yesterday, and medicines which he rejected for his relief then he was now as eager to obtain. He is much quieter, but gets excited if he converses for long. Twice a saline purgative (mag. sulph. 3iv.), combined with 10 grains of pot. nit., was administered without effect, and the following mixture:—

R Pot. nit.	...	...	...	grs. 60
Spt. ether nit.	...	...	...	3ii.
Liq. am. acit.	...	...	...	3ss.
Tr aconiti	...	...	...	mxx.
Aquæ	...	...	ad	3vi.

Misce. Half ounce to be given hourly, was commenced in the evening for its diuretic and sudorific effects. An acid tonic was ordered in the morning, and a sleeping draft (pot. brom. grs. xx., antifibrin grs. vi.) was ordered at bedtime; a tablespoonful of lucca oil was also administered in the evening. To-day patient is anxious to partake of food, and feels he has an appetite for it. Rice conge, lowki, and mung dal, which are said to have cooling effects, were given.

22nd.—Patient did not sleep well in spite of the draft, but when I saw him in the morning at 8, his temperature was subnormal (97°), he was walking up and down in front of his hut, his bowels had been thrice acted on, his urine was more abundant and not so high coloured, and he was anxious for food. He has kept well during the day, had a bath, his body is cool, his tongue moist, his thirst not so intense, and the internal burning feeling less marked; he has, however, a heavy look about his eyes, and reminds one of a person who has not slept for days. 30 grains of pot. brom. were administered at 3 P.M., and about 10 P.M. 10 grains of pulv. ipecac. co. The tonic and diuretic mixtures were given alternately, the oil thrice daily, and the diet of yesterday adhered to.

23rd.—Patient slept soundly for six hours during the day; he is not talkative, has no thirst, and is placed on his usual diet.

25th.—Patient discharged.

Remarks.—The occurrence of modified symptoms of a deliriant coming on so long after his admission here, his extravagant, excited talk, and being attracted by the light, would throw one off the scent as to what really was the matter and render his case most obscure. If a drug had really been administered in Ajmere, it seems strange such a long interval should have elapsed (midnight of 19th) before he became excited, though he complained of thirst and suppression of urine during the day, and on the 18th—if it had been a drug its effects, which were slow in declaring themselves, very gradually wore off. The native idea was some metallic preparation had been given by the Vaid; this had not been sufficiently burnt, and, to crown matters, the patient did not consume plenty of ghee after it: hence his suffering in the way he did.

PUERPERAL ECLAMPSIA: RECOVERY ON EXPULSION OF ROUND WORMS.

BY ATUL CHUNDBA MOOKERJEE, C.M.S.

Medical Officer, Rai Doorga Prasad Ghose Bahadoor's Dispensary, Solaghur, Dacca.

On the 15th October I was called in to a confinement case, primipara, aged 16, in pains for three days, and suffering from severe spasms.

Condition.—Severe convulsive movements: pulse small and quick: eyes congested: face pale: tongue protruded and bitten: breathing stertorous: patient insensible: examination per vaginam showed rigid os: no foetal heart sound: bowels moved well once.

Treatment and Progress.—Chloral and bromide: at the end of three hours os sufficiently dilated to admit one finger: presentation occipito catyloid: as patient was much exhausted and cyanosed, it was decided to terminate labour: application of cocaine to cervix induced dilatation to size of rupee: chloroform administered: vulva and vagina thoroughly disinfected: bag ruptured and child removed by craniotomy: uterus washed out with Condy's fluid and binder applied: extract ergot liquid 3i given at once. The convulsions, however, returned, and necessitated the re-administration of chloral and bromide, to which was added 5 minims of tincture of musk to each dose. At the same time cold lotion was applied to the shaved head, and the diet consisted of milk and sago. Next day patient was much the same: temperature 102°: pulse weak: quite insensible: had had several severe protracted convulsive attacks during the night: bowels constipated: urine scanty and high coloured: no albumen: no enlargement of liver and spleen: heart and lungs healthy: no polypus in nostrils or ears: tongue coated, protruded and violently bitten: reddish foetid discharge from vagina: no history of venereal disease.

Considering intestinal worms might be the cause, the following was given:—Santonin grs. 5: sodæ bicarb grs. 10: pulv. scammonea co. grs. 10: pulv. jalap co. grs. 10 at bedtime, and mixture of liquor ammon. acetatis: pot. bromid: spt. chloroform: tinct. belladon: and aquæ camphor administered every four hours. At the same time the uterus was washed out with Condy's fluid, and a cork placed between the jaws to prevent the tongue being further injured.

17th October.—Had three motions, with which eight round worms, varying from 8 to 12 inches in length, were passed, and the convulsions ceased almost simultaneously: temperature 99°: pulse better: urine passed thrice with less high colour: regained slight sensibility, and complained of pains all over the body. A mixture of quinine, hydrobromic acid, spts. of chloroform and infusion of quassia was then given every four hours with a diet of milk, sago and soup. After this the patient recovered rapidly under a tonic.

Remarks.—It is perhaps quite probable that the irritation due to the presence of the round worms was the continuing, if not the inciting, cause of the eclampsia, which, as is seen, practically vanished with their expulsion.

A CASE OF OVARIAN CYST, CLOSELY RESEMBLING ASCITES: OPERATION: RECOVERY.

BY LIEUT.-COL. C. M. THOMPSON, M.B., B.CH., I. M. S.,

Staff Surgeon, Civil Hospital, Secunderabad.

(Reported by Hospital Assistant R. YELIAH RAJIAH).

SWAMMAH, a Hindu female, aged 19 years, married, no issues, was admitted into hospital for what appeared to be ascites.

Condition.—Weak, lean, anæmic: distension of abdomen uniform: percussion thrill, general all over: but for absence of albumin in urine and the healthy state of the liver and heart, the case was in all respects similar to one of ascites. A closer examination, however, revealed that the swelling was not peritoneal dropsy.

History.—Not clear: first noticed swelling at lower part of abdomen about 10 or 12 months previously: did not remember whether this was one-sided or general: menses almost regular, but scanty since swelling commenced.

Examination.—Front part of abdomen dull: flanks indistinctly resonant: clear resonance between margin of liver and the upper border of the dulness when percussed with a pillow under the back: swelling soft, very uniform and yielding: per vagina, uterus displaced downwards and Douglas' pouch empty: an obscure bulging on the upper part of the anterior lip of cervix.

Diagnosis.—Ovarian cyst.

Operation.—The usual aseptic precautions with instruments, sponges and towels aid the patient's abdomen: anæsthetised: abdomen opened three inches below umbilicus by median incision: on division of peritoneum, tumour bulged: slight adhesions cleared: SPENCER WELLS trocar introduced and five pints of brown glutinous fluid removed: cyst found unilocular: sac large and thin: pedicle thick and broad, ligatured in three parts and the stump left in the abdominal cavity, which was irrigated with warm salt solution and sponged. The peritoneum, muscles and skin were stitched together by one silk ligature: after-treatment simple: nothing given for eight hours, after which tablespoonfuls of water were administered occasionally until next day, wheniced milk and water was allowed for two days, when broth was added on the sixth day, after which a little well-boiled rice and milk was given. The progress was uninterrupted, except on the fourth day, when there was a rise of temperature to 100° and some discomfort of the bowels, both which were relieved by a warm turpentine enema. The sutures were removed on the eighth day, when the wound was found to have healed by first intention. The parts were well strapped and the woman allowed to sit on the twentieth day, and discharged on the fortieth day after the operation.

Indian Medical Record.

9th January 1901.

A COMPLETE EXPOSURE OF THE AMERICAN BOGUS M.D. BUSINESS.

ABOUT nine months ago a Bengali, who signed himself as H. L. M. S. (Homœopathic Licentiate of Medicine and Surgery), addressed the Secretary of the Indian Medical Association, desiring admission into the Association as a "qualified medical man." He was informed that he could not be admitted into the Society with a "Certificate" from the Calcutta Homœopathic Medical School. Three months ago this same person again applied for admission to the Association, stating this time, that he had "now obtained the degree of M. B." Upon this the Secretary enquired the source of the "degree," the nature of the examination for it, and the status of the examiners. This elicited the following startling information:—"The degree of M. B. was obtained from the Western University of Chicago, the question papers were sent to a Babu in Calcutta, named BHUBAN MOHAN BANERJEE, M.A., LL.D." (whose degrees are probably of Western University manufacture), "and this gentleman conducted the examination, forwarding the answers to Chicago, and receiving the 'diplomas' for the 'successful' candidates." In this delightfully simple manner a number of uneducated natives, most of whom are the products of that bogus institution called the "Calcutta Homœopathic Medical School," have received bogus degrees, and are probably now plying their "trade" as M.Ds. The Secretary of the Indian Medical Association, on obtaining the above information, sent a copy of the correspondence alluded to, to the Secretary to the State Board of Health of Illinois, the State of which Chicago is the capital, asking for information regarding the Western University of Chicago. The following is the official reply:—

"OFFICE OF THE STATE BOARD OF HEALTH, ILLINOIS;
SPRINGFIELD, the 3rd December 1900.

JAMES R. WALLACE, M.D., F.R.C.S.,

50, Park Street, Calcutta, India.

DEAR SIR,

In reply to your favor of October 25th, 1900, just at hand, I beg to inform you that there is not now, neither has there been at any time, a medical Institution in the city of Chicago, named the Western University of Chicago.

The People's Institution, a building on the corner of Leavitt and Van Buren Streets, sheltered in 1899 not only the Independent Medical College and the "Metropolitan Medical College," both fraudulent institutions, but also the "Western University of Chicago," a corporation organized by one J. H. RANDALL, "Ph. D." "M. D.," etc., etc., who was "Professor" of Biology, Chemistry, Hygiene, Tokology, Dentistry, Etiology and Psychopathy, in the "Independent Medical College." Mr. RANDALL was evidently not satisfied with his share of the proceeds derived from the sale of the "diplomas" of the "Independent Medical College," so he organized a corporation (?) of his own, labelling it the "Western University," and proceeded to run it in competition with the "Independent," and from a college office of about 8 x 10 feet, he commenced the grinding out of a miscellaneous assortment of "degrees" to persons who fancy such articles.

Although apparently conducted as a separate Institution, it is stated that the "Western University" was in har-

mony with the "Metropolitan Medical College," the successor of the defunct "Independent," a college which is now enjoined by the courts from conferring any more degrees. Mr. RANDALL was also a "Professor" of Dental Surgery and Anatomy, Physiology and Chemistry at the "Metropolitan."

I am told that the "degrees" of both Institutions were signed by the same office girl.

Undoubtedly the "examinations" in India and elsewhere were conducted on the plan inaugurated by "Professor" VAN NOPPEN, of "Independent" fame.

I think that you have sufficient information regarding the Western University.

For your further information, I will say that the following named "Institutions" in Chicago, some of which are still in existence, are fraudulent. None was ever a medical college in any sense of the term. They were simply corporations organized for profit, the profit being derived from the sale of diplomas, and by the promoters of such diplomas, were sold to all comers:—

- The National University of Illinois.
- The Chicago College of Science.
- The German Homœopathic Medical College.
- The German Medical College.
- The German American Homœopathic Medical College.
- The Illinois Health University.
- The American Health University.
- The Academia Illinois.
- The Illinois Standard College of Medicine and Surgery.
- The Dutton Medical College.
- The Chicago Seminary of Sciences.
- The Independent Medical College.
- The Western University.
- The Metropolitan Medical College.
- The International University.

There are some others, but the above comprise those most prominent in the industry.

I am surprised that the gentleman, the correspondence with whom you enclose, should content himself with a mere M. B. degree, when, for the expenditure of a little more of the coin of the realm, he could have, in addition, the titles of LL.D. and Ph. D. conferred upon him.

Yours very truly,
J. A. EGAN, M.D., Secretary."

The Government and the public have now a list of no less than fifteen of the principal American "Institutions" in Chicago which have carried on, and are still carrying on, a disgraceful and nefarious traffic in the sale of medical diplomas. Their plan of campaign is demonstrated in the instance of the "Western University of Chicago," which does "business" in Calcutta through the agency of Babu BHUBAN MOHAN BANERJEE, M.A. LL.D., whoever this individual may be. Here we find a Bengali (the applicant for admission to the Indian Medical Association), who is very imperfectly educated in English, going through a few "lectures," with no hospital training, no experience, and no real technical education in Medicine, launched out with a "diploma" which is a spurious and colorable imitation of the Calcutta University L. M. S. degree, by a bogus "School" of Homœopathy in Calcutta, a man utterly unfit to treat the sick for medical ailments, and admittedly unqualified to give relief in a surgical case—for homœopathic schools do not, and cannot, teach surgery—given the diploma of H. L. M. S. (Homœopathic Licentiate of Medicine and Surgery), and this is the kind of person to whom the "Western University" grants the honorable title of M. B. No exposé could be more thorough in its utter and complete condemnation of a fraud, than this single instance of American rascality. But it is only one of many of the same type, as the police will soon discover.

Utterly disgraceful as it is to find irresponsible American harpers selling medical degrees in India to gullible quacks, with only a smattering of homeopathic ideas of treatment, how grossly reprehensible must it be for the Government of Bengal to allow bogus Institutions like the Calcutta Homeopathic School, and two other Bengali schools in this city, to be drafting out on the public, year after year, shoals of ill-trained and positively illiterate "practitioners," armed with diplomas from the "authorities" of these bogus Calcutta schools. Of course let us have independent schools, but let them be properly equipped, properly officered, and let their examinations be placed under Governmental inspection. If there is to be a regulated system of medical practice in India, the sooner the task of State control and registration are taken in hand, the better will it be, not only for the public, but for the Government, as in a few years the country will be literally overrun with the rag-tag and bobtail of a rabble from the bogus "schools" of Calcutta, all styling themselves "Physicians and Surgeons" and "duly qualified" medical men.

With this complete list of the Chicago Diploma Mills in their hands, the Government and the Police authorities ought to find it easy to arrest the "agents" of these fraudulent Institutions, by demanding from every "suspicious" practitioner, making use of the honorable titles of M.B. and M.D., the source of issue of his "degree." Let us hope that another serious blow has now been effectively dealt to fraudulent sellers and fraudulent buyers of American degrees in Medicine, and that the public will soon see the end of this traffic.

MODERN IDEAS ABOUT TETANUS.

At a recent meeting of the New York County Medical Society, the important subject of tetanus was taken up for discussion. We give a summary of the proceedings, details of which appear in an American contemporary. Dr. ALEXIS V. MOSCHOWITZ, in opening the discussion, observed that such phrases as traumatic and idiopathic tetanus were no longer recognised. The tetanus bacillus entered through a breach of continuity and multiplied at the point of infection. It did not find its way by metastases through the system. During its growth toxins of an intensely virulent character were produced, and their absorption caused the symptoms of tetanus. The division of tetanus into cephalic, puerperal, tetanus neonatorum, etc., was justified by the train of symptoms in each variety. Trismus was usually the preliminary sign. The pathology remained as yet indefinite. The most uniform pathological condition noted was a hyperæmia of the nerve centres. The normal brain and cord substance had been found to be capable of neutralising, to some extent, tetanus toxins, and it was in the cerebro-spinal fluid that the most virulent toxin of the disease was found. These toxins, formed at the point of inoculation, seemed to find their way into the central nervous system through the perineurium of the nerves, and its main point of attack in the spinal cord was the large cells of the anterior horns. The prognosis depended upon the length of incubation, and upon the acuity of the affection. The mortality had been placed, prior to the use of antitoxin, as high as 96 per cent. Of 290 cases treated with antitoxin subcutaneously, 117 had died. The percentage of recoveries in 48 cases treated with intracerebral injections had been a little over 50. The indications for treatment were: (1) Destroy the bacteria present, and prevent the further absorption of toxins—the wound of entrance should be enlarged, dust and foreign bodies removed, and a thorough disinfection of the tissues insisted on. (2) Eliminate, as far as possible, all toxins that had been absorbed—catharsis and diuresis, and possibly venesection, as much normal salt solution being introduced beneath the skin as there was blood removed. (3) Failing to eliminate, neutralise the

toxins already in the circulation, and further anticipate the symptoms of the disease and its development by immunising patients before the disease developed antitoxic treatment. Unfortunately, however, before symptoms of tetanus announced themselves, the toxins of the disease had become more or less permanently fixed in the cells of the central nervous system, where the antitoxin was unable to affect it. Immunity could be produced if the antitoxin was given before symptoms of tetanus declared themselves. When symptoms had developed, it was not the beginning of the tetanus, but the beginning of death from tetanus. The most promising field therefore for antitoxin subcutaneously was its use as a prophylactic. The subcutaneous injection of antitoxin had, however, undoubtedly lessened the death-rate from this disease. The intracerebral injection of antitoxin was of service, although a definite idea of its value could not perhaps as yet be given. (4) Overcome the symptoms of the disease by the administration of remedies that promised to have an opposite effect upon the organism—chloral, bromides, opium and hyoscyanus. Subcutaneous injections of brain substance, and the injection of large amounts of carbolic acid, seemed not unworthy of consideration and trial. Dr. WILLIAM H. PARK, who followed this speaker, said that the surgical treatment of wounds inflicted on the street should be most carefully attended to. If the wounds were opened at the beginning, the tetanus bacillus would not grow. If even after the development of the first symptoms we knew where the wound of entrance was, it should be opened up to remove the bacilli and prevent the absorption of further toxins. Although the prophylactic employment of antitoxin was valuable, once the symptoms of tetanus had manifested themselves, the use of antitoxin did not seem to influence the course of the disease, for the cells of the central nervous system were then ready to die. The use of the serum by intracerebral injection did not seem to add to its value. Dr. ROBERT ABBE detailed his personal experience with antitoxic serum (intracerebral injection) in the treatment of tetanus. On the whole, he found its use of decided benefit, and he believed firmly that it had a great future. The appearance of the wounds through which infection took place was very varied, and in no way coincided with the severity of the attack. As in cases of anthrax, there was at times an oedematous, hard, pork-like condition of the surrounding tissues. Some of the cases that began mildly had severe exacerbations, and it was not an unusual thing to have a sudden relapse more severe than the rest of the disease, after a seeming recovery. Dr. CONVERSE reported an interesting case of infection through frost-bite, in which, after an apparent cure by amputation and the subcutaneous injection of antitoxin, death ensued from pyæmia. The pyæmia seemed to be due to infected serum, the vial which contained it having been allowed by mistake to stand unwrapped and uncorked for some time. Dr. M. WARE said that the tetanus bacillus absolutely refused to grow in the presence of oxygen. It found favourable conditions only in the depths of the tissues, where free oxygen was excluded. The cardinal prophylactic indication, therefore, was to lay open all wounds made on the street, so thoroughly that they might have free access of air. Cauterisation was inadvisable, as by matting the tissues together it shut off the air, and thus created favourable conditions for the multiplication and growth of the bacillus. Dr. FISHER thought there was no reason to consider that the nerve cells were affected by the tetanus toxin. When cells of the central nervous system were affected, the usual result was a palsy; convulsions were never produced. It was probable, therefore, that the pathological lesions of tetanus would not be found in the cells, but rather in the meninges. In closing the discussion, Dr. MOSCHOWITZ remarked that with proper aseptic precautions, intracerebral injections were undoubtedly of the greatest service, and a distinct advance in the therapeutics of tetanus.

COMMENTS AND NEWS.

THE I.M.S. AND THE EDITOR OF THE "INDIAN MEDICAL RECORD."

Some I.M.S. men in Calcutta have stated that the reason that the *Indian Medical Record* is "so dead against the I.M.S.," is that the Editor (Dr. J. R. WALLACE) appeared in the London competitive examination for the I.M.S. and failed to get in, and that he therefore shows the strongest antipathy to the I.M.S. in consequence. It becomes our duty to deny the story. Dr. WALLACE appeared for the examination of the Royal College of Surgeons and Physicians of Edinburgh in February 1880. He topped the list of 64 candidates from the English, Irish and Scotch schools, and was complimented by the Presidents for the excellence of his papers and for his work at the practical part of the examination. Among the 64 candidates was one of the present "I.M.S." Professors of the Calcutta Medical College. Dr. PATRICK HERON WATSON, Vice-President of the R. O. S., Edinburgh, to whom Dr. WALLACE had been most favorably recommended by Dr. DAVID B. SMYTH, then Principal of the Calcutta Medical College, wrote to Sir JOSEPH FAYRER, the medical adviser to the India Office, telling him of Dr. WALLACE's great success in Edinburgh, and asking that his special attainments might receive the recognition of the India Office. Sir JOSEPH FAYRER thereupon advised Dr. WALLACE not to appear in the London competitive examination for the I.M.S., as he (Sir JOSEPH FAYRER) stated that the India Office would give Dr. WALLACE a special appointment in India, with good prospects, such as would not be immediately open to him if he entered the I.M.S. He could easily have come near the top of the list of that term for the I.M.S. with the class of men who got in then, and even with a stronger lot. Dr. WALLACE, however, took Sir JOSEPH FAYRER's advice, and did not appear for the I.M.S. competitive at that time, nor at any other time. He was immediately on his return to Calcutta appointed Resident Surgeon to the Medical College Hospital as a direct result of Sir JOSEPH FAYRER's kindly influence. We trust that the gentleman guilty of the misstatement herein referred to will now find sufficient cause not only not to repeat a story which is absolutely without foundation, but to contradict it, as the obvious double intention of the fabrication is to imbue the public with a belief that our comments on, and criticisms of, the I.M.S., are biased and tainted with malice arising from offended pride, and that the Editor of the *Record* was so sadly lacking in professional qualification as to fail in the ordeal of entering the I.M.S. by open competition!

NEW TREATMENT FOR DIABETES.

WE take the following from an article contributed by Dr. WILLIAM RUSSELL, M.D., F.R.C.P., to the *Medical Brief*, on A New Treatment for Diabetes. Without referring to the familiar features of the symptoms, etiology and pathology of diabetes mellitus dealt with by the writer, we proceed at once to give a summary of that portion of the paper relating to the treatment of a case with fresh thyroid. The patient, a married woman, was admitted to hospital on the 16th August: no family history of diabetes, phthisis, or insanity, nor of accident or injury; husband perfectly healthy (doing away with any probability of microbial origin); history of sudden shock with symptoms of thirst and excessive micturition a fortnight later; weakness progressed until on admission her weight was 93 pounds. She was passing a little over 100 ounces of urine in 24 hours: acid; specific gravity 1046: no albumin; large quantity of sugar; organs apparently healthy. Reviewing the probable causes of the ailment, it was decided that a nervous disturbance had given rise to a vaso-

motor paralysis, and thus to a more rapid blood-supply to the liver and other organs. During the first fortnight the patient was kept in bed on ordinary diet and no medicine, and an average of 14 days' observation showed that the patient passed in 24 hours 112 ounces of urine containing 5848 grains of sugar. The writer had little faith in the usual remedies—opium, morphine and codeine—and even nitrate of uranium. It seemed to him that what was wanted was a drug which would get rid of the sugar from the urine without the necessity for restricting the supply of carbohydrates, and that this remedy would be found from a study of organo-therapy. Feeding with pancreas had proved unsatisfactory with others, so thyroid feeding was adopted, and preference given to fresh thyroid, every precaution being taken to procure reliable glands. This was made into pills, each pill containing 4 grains. Three pills were given three times a day,—36 grains in 24 hours. After the third dose headache and giddiness was complained of, and the treatment suspended. Five days later the treatment was resumed, two grains being given every three hours. This time no inconvenience was experienced, but two days after the temperature rose to 100·6, pulse to 104, with pain in chest and watery eyes, and a rash over the upper part of the thorax, over both scapulae and on the anterior and external aspects of both thighs of a bright red color, almost papular. It might have been a thyroid rash, or it might have been a toxic erythema due to meat poisoning. On the next day treatment was resumed, first with 6-grain, and then in 12-grain doses every three hours, and kept up for almost a month. Tolerance was established. Diet during this period consisted of meat, bread, butter, tea, potatoes and milk gruel, and was practically unrestricted. Sugar sank to 8057 grains after 14 days, and in the last three days to 1180 grains, thus showing a fall of 4668 grains. The thyroid treatment was then suspended and the patient dieted. After eight days 3440 grains of sugar was found in 24 hours, being 2260 grains more than on an unrestricted diet, plus thyroid feeding. The quantity of urine passed was also proportionately affected, and so was the body weight. The patient became an out-patient and returned from time to time. The effect of thyroid feeding was, said the writer, undoubtedly transitory, and the administration of the drug must be maintained. The thyroid yielded an internal secretion which effected some useful purpose in the animal economy. Probably it possessed the power of destroying the toxic products of metabolism. One of its most noteworthy effects was the increase it produced in the oxidation of the tissues of the body. If PAVY's theory that glycogen was converted into fat was accepted, we had a clue to the action of thyroid in the treatment of diabetes. The writer thought that the treatment would be found most efficacious in those cases, of glycosuria occurring in elderly people in which obesity was a prominent feature.

NEW ARMY DOCTORS.

WE quote from the *Statesman*:—The report of the Royal Commission on the Treatment of the Wounded in South Africa will deal at length with the organisation of the Army Medical Corps and the difficulties with which it has had to contend. Owing to the peculiar circumstances of the case, it has been practically impossible to induce young doctors to enter the competition for the Army, and excessively difficult to obtain them by nomination. Of late years the emoluments of the staffs of the great civil hospitals have materially increased, and this is an obvious reason why, in order to secure competent men, the War Office must hold out greater inducements than are at present offered to doctors desirous of joining the service.

There is another important consideration, apart from the financial question to which the Commission has given its attention. It is now recognised as essential that army doctors must have adequate leisure for study and for recreation. Year by year more rapid strides are being made in medical science, and particularly in surgery. After a doctor has served five years abroad, he finds on returning to England that he is behind the times. In order that he may acquaint himself with the discoveries made in the interval, he should have a certain period given him to bring his knowledge up to date. But in consequence of the small number of medical officers available, it has been impossible for the authorities to grant the requisite leave, and this naturally has not tended to increase the efficiency of the corps.

There is no question of reverting to the old system under which each regiment had its own medical officer. This, it has been pertinently pointed out, would be putting back the hands of the clock. The tendency in Continental armies to-day is to follow in the direction which has been pursued here. On this head it is recognised that no doctor would care, for instance, to be appointed to a crack cavalry regiment where a large private income would be essential. Here is a point affecting the individual doctor, but there are various other objections which concern the whole problem of medical organisation. The Royal Commission has cost many thousands of pounds, and it is anticipated by those who know the shortcomings of the existing system that some material good will result from its labours.

INDIAN AND COLONIAL ADDENDUM OF 1900 TO THE BRITISH PHARMACOPEIA OF 1898.

This addition of 59 special pages to the British Pharmacopœia, makes official, a long list of well-known indigenous drugs and preparations of great therapeutic value and well-established reputation in Indian pharmacology. We refrain from entering on those drugs that do not commonly belong to India, but every experienced practitioner will frankly admit that the scientific recognition of certain Indian remedial agents, such as we append, and their inclusion into the "Imperial" Pharmacopœia, exhibits not only sound sense on the part of the British Committee, but it also places within the reach of practitioners in Great Britain and the Colonies a class of drugs that deserve a high place in the armamentarium of every unprejudiced healer of disease. We mention a few excellent Indian drugs which find place in the Addendum :—

Acalypha, *mylabris*, *urgingea*, *adhatoda*, *andrographis*, *aristolochia*, *azadirach* (neem), *berberis*, *betel*, *butea*, *caloptis* (mudar), *gamboge*, *black catechu*, *cissampelos*, *datura*, *gossypium*, *hygrophila*, *ispaghula*, *sappan*, *toddalia*, *kuladana*, *tinospora*, *ajowan*, *arachis*, *gynocardia*, *lemon-grass*, *sesame*, and many others.

We cannot withhold the remark that the Hindustani names of these drugs should have been introduced, for this would not only have made the collection of such indigenous products easy for pharmaceutical collectors, but it would have rendered this section of the British Pharmacopœia far more interesting and useful to thousands of Indian practitioners. As things now stand, such men must search old books for guidance, and old books are not to be had, save in large libraries.

THE CHIEF JUSTICE AND THE DOCTOR'S CERTIFICATE.

SIR W. BONSER, the Chief Justice of Ceylon, has issued a rule on Captain J. B. REDDICK, R. A. M. C., to show cause why he should not be committed to prison or otherwise punished for contempt of Court. It appears that Dr. REDDICK gave a certificate to Major PAIN, who had been summoned to serve on the Jury, certifying that the Major was not well enough to serve. The Chief Justice took

exception to the terms of the certificate and refused to accept it, remarking that it was the duty of the doctor to state what the illness was the Major was suffering from, and the duty of the Court to decide whether the statements in the certificate were sufficient to entitle the holder thereof to exemption. The certificate was accordingly rejected. On Dr. REDDICK hearing of this, he addressed a letter to the Chief Justice, expressing his surprise at his course, demanding an apology, and threatening, in the event of a sufficient apology not being forthcoming, to represent the Chief Justice's conduct to the Imperial authorities. On receipt of this letter His Lordship ordered the rule *nisi* to issue.

Dr. REDDICK finding he had offended the dignity of the High Court, offered an apology, which the Chief Justice accepted, remarking that Captain REDDICK, while shielding his professional reputation, should have displayed more prudence and discretion.

"L. S. A., LONDON, PHYSICIAN AND SURGEON."

The Hospital says :—The title and description by which the London L. S. A. is in future to be known as "Physician and Surgeon." As we lately stated, the Society of Apothecaries undertook some time ago to protect any of its licentiates from the consequences of assuming the title of "Physician and Surgeon," and they have now resolved that this is the only title which the Society can authorise as a proper description of those holding the qualification L. S. A., 1886. This may either be added to the title of L. S. A. or used alone. The Society has also decided to discourage, in every possible way, the use of any other title by their licentiates. This is as it should be. The L. S. A. is a good, old and respectable qualification, and in view of the fact that while the old title of Apothecary has practically lapsed and become meaningless, the L. S. A. is now a fully qualified practitioner of both medicine and surgery, it seems but right that he should be given a title which shall express his position; but the claim to all sorts of fancy letters after his name, which has been put forward by some writer, is absurd, and should be at once put down.

NEW YEAR'S MEDICAL HONOURS.

The Gazette of the 1st January 1901 contains the following honors to medical men :—

C. I. E.

Major JOHN CRIMMIN, V.C., I. M. S. Health Officer, Bombay.

THE KAISER-I-HIND GOLD MEDAL

Dr. A. NEVE, Kashmir.

THE KAISER-I-HIND, SILVER MEDAL.

Lieutenant-Colonel MATHEW LORENZ BARTHOLOMEUSZ, M.B., O.M., I. M. S., Bombay Presidency.

Miss ALICE CORTHORN, M.D., B.Sc., Poona, Bombay Presidency.

Major WILLIAM HENRY BANNER ROBINSON, I. M. S., Civil Surgeon of Bikanir, Rajputana.

Rao Sahib.—Senior Hospital Assistant LUXUMON GOPJI MATKAR, I. S. M. D., Bombay.

INDIAN MEDICAL SERVICE DINNER.

The members of the Indian Medical Service in Calcutta and its neighbourhood held their annual dinner on the 2nd January at the Saturday Club. Surgeon-General HARVEY presided, and covers were laid for 60 persons. Everything was of the very best, and PELITI personally superintended the arrangements. The table decorations were particularly fine. The usual after-dinner toasts were proposed and duly honoured. Dr. HARVEY's speech was in brief an injunction to his hearers to "Love the Government of India," "Trust the Director-General." Imagine such a thing! Fancy real I.M.S. "Professors" being so lectured. This looks much like *ataxia* somewhere.

REFORMS IN THE ARMY MEDICAL SERVICE.

The Medical Brief says:—A Sub-Committee of the Parliamentary Bills Committee of the British Medical Association is about to invite the medical schools and colleges to state the reasons why well-qualified candidates do not join the R. A. M. C. We suspect the main reasons will be found to be insufficient pay, long foreign service, and want of study leave. Meanwhile we note with satisfaction that in the latest edition of the Regulations for the Army Medical Service the Surgeon-General of an army in the field is restored to his proper place on the staff of the General Officer Commanding-in-Chief. He was removed from that position against the protests of those who take an enlightened interest in the health and well-being of the army. The experiences of the war in South Africa have hastened his restoration to a position from which he should never have been removed. What is still wanted is that his staff of a secretary and orderly officers should also be restored. We also notice that steps in local rank in South Africa have at length been conceded to officers acting in administrative positions superior to their army rank. Two most important administrative reforms on which we have insisted have thus been accomplished. They are probably the prelude to others of a far-reaching kind, for Mr BRODRICK, in his speech, is reported to have said that the War Office was only waiting for the report of the Hospitals Commission in order to take prompt action on army medical matters; and "no preconceived ideas would prevent the taking of measures, however drastic, necessary to put the service on a 'proper footing.'"

RETURN OF A DISGRACED "AMBULANCE" CORPS.

The New York Medical Record says:—Thirty-three members of the Chicago Irish-American Ambulance Corps, which left this city to help the Boers in the Transvaal last February, got back on the steamship *Trave*. There were fifty-eight men in the corps, among them six physicians. They were Drs. J. R. MACNAMARA, HERBERT MCAULEY, JAMES J. SLATTERY, R. L. LONG, A. F. CORNEY, and J. B. ADERHOLT, all of Chicago. GEORGE CASSIDY went as a nurse. The other fifty-one were supposed to be litter men. Before leaving this country each of the fifty-eight men went before a Justice of the Peace and made affidavit that he was going to South Africa, not as an ally of the Boers, but as an ambulance man, and each man pledged himself not to fight. Miss CLARA BARTON gave the Irish-American Corps a Red Cross flag and recognised the organization as a Red Cross auxiliary. The six physicians and the nurse adhered to their pledges, but all the others entered the fighting ranks of the Boers the minute they reached the Transvaal. Some of the men were killed, some were captured or ran away, and some are still fighting. We are pleased to note that the reception the returning band of pledge breakers got from the committee which had been appointed to meet them was far from cordial, and instead of congratulations, they received reproaches for having perjured themselves.

IMPUDENCE OR IGNORANCE.

Indian Engineering says:—The Chief Medical Officer of the Eastern Bengal State Railway has evidently a great conceit of himself, and it illustrates, of course, the usual result of the absurd experiment of putting a beggar on horseback. Despite of the fact that his tenure of service is exactly on the same conditions as those which control the conduct of a first-class porter, he is indignant that the Inspector-General of Civil Hospitals in Bengal should concern himself in any way with the medical administration

of a State Railway in the Province, and implies that Dr. HENDLEY would have quite enough to do were he to look after his own legitimate work. Verily this local medical magnate is imitating the frog in *Æsop's* fable, and if he does not take care he will burst.

THE DOCTOR'S DUTY CALL.

Our ancient lesson will be ever new;
That priceless lesson will be ever true;
Time did not teach it, time will change it not.
This, this shall last though all our lore's forgot.
To give what none can measure, none can weigh,
Simply to go where duty points the way;
To face unquestioning the fever's breath,
The hundred shadows of the vale of death;
To bear Christ's message through the battle's rage,
The yellow plague, the leper's island cage,
And with our noblest "will to understand
The poor man's call as only God's command."
Ay, under every century's changing sky
Shall the Greek Master's triple signal fly—
Faith, honour, duty—duty calmly done,
That shouts no self-praise o'er a victory won;
One bugle note our only battle call,
One single watchword, Duty! that is all.

DEATH OF AN EMINENT ANGLO-INDIAN SURGEON-GENERAL.

The death is reported at Stuttgart, in Germany, on the 29th ultimo, of Deputy Surgeon-General J. Keess, a Eurasian gentleman who retired from this country in January 1887. He was essentially a self-made man, who rose to the position he occupied entirely by his own exertions. Entering the Indian Medical Service in 1856, he was selected ten years later by the Madras Government for special duty in connexion with the Government Cinchona plantations, his reports on which attracted much favourable notice. In the same year he was appointed a Professor in the Madras Medical College, of which he subsequently rose to be Principal.

SHORT ITEMS AND PERSONALITIES.

An Indian paper says:—It is the day of the Kaviraj in Calcutta. One advertises that his medicines, rare and valuable, are "prepared under his strictest supervision and from genuine ingredients." The medicines are "super-excellent," while the prices are "just to suit all purses." Whatever the ingredients, whatever the value of supervision, and whatever the cost of preparation, the medicines sell at all prices from zero upwards.

We are glad to hear that Rai Bahadur Chuni Lal Bose, M.B., F.C.S., has made an original research into and discovered a powerful poison from the *Karabi*. The university has awarded the Coates Memorial Medal to the Rai Bahadur. We hear that the Government intend publishing the research in the annual memoirs of original research in Science and Art. We offer to the Rai Bahadur our hearty congratulations.

Sir Henry Thompson, the eminent surgeon, says that at over 80 years of age he has as strong a belief in total abstinence as ever, and strictly practices it; he confirmed this in a subsequent interview, and further mentioned the interesting fact that, having experimented upon himself at 70 years of age, he found that the use of even a very moderate quantity of wine was detrimental to his enjoyment of perfect health.

Gurdaspur was quite *en fêre* on the 20th ultimo on the occasion of the marriage of Miss Louise Le Marchand, second daughter of Mr. W. J. Le Marchand, District Superintendent of Police, and Captain E. Montgomery Williams, Royal Army Medical Corps, son of Colonel Montgomery Williams, late 1st Battalion, Prince of Wales' Leinster Regiment (Royal Canadians).

The troops in Quetta are still suffering abnormally from enteric fever. Major Davies, R.A.M.C., who had been deputed with Major Elliott, R.A.M.C., to investigate the cause of the outbreak, has proceeded to Army Head-quarters in order to place certain deductions before the highest authorities, and on his return to Quetta shortly the inquiry will proceed.

Major Hendley, I. M. S., Officiating Professor of Materia Medica in the Lahore Medical College, has been selected to take medical charge of the young Maharaja of Patiala and also to act as medical adviser to the State. Captain James, who is at present temporarily lent to the State, will probably return to Umballa.

In the annual report of the Cork District Lunatic Asylum the Resident Medical Superintendent says:—"The close affinity of intemperance to insanity in this country is not sufficiently recognised amongst the public; few know that the children of the habitual drunkard are almost certain to become epileptic or insane."

The Ceylon Contempt of Court case has ended happily for all parties. Captain Reddick, R.A.M.C., has apologised to Sir W. Bonser, the Chief Justice, for having written the letter to which his Lordship took exception. His Lordship said that Dr. Reddick was right in shielding his professional reputation, but he should have acted more discreetly.

Lieutenant-Colonel Crofts, who was and still is in medical charge of the S. S. *Gwalior*, is living on board the ship. The *Gwalior* will land her sick men and then go back to China. Colonel Crofts will not, we understand, go in her, but revert to the medical charge of the Gwalior State.

The Secretary of State proposes to make an alteration in the regulations for admission to the Indian Civil Service by abolishing elementary chemistry and elementary physics from the list of subjects. Higher chemistry and higher physics remain.

Advices received here recently notify that the preparation of smokeless powder being in full swing in Kabul, and, what is more important, the chemicals necessary are all produced locally.

We are glad to hear that Colonel G. Ranking, who was unfortunate enough to lose his eye the other day through an accident at cricket, has now quite recovered from the operation.

Surgeon-General C. E. McVittie, I.M.S., lately Surgeon-General with the Madras Government, and Colonel J. H. Newman, I.M.S., lately Principal Medical Officer, Lahore, have been granted good service pensions.

Nursing Sister Miss M. E. Gray, Indian Nursing Service, from Madras, is posted to the Allahabad Station Hospital.

The official estimates for next year place the requirements of the army in India in medical stores at ₹23,000.

Lieutenant-Colonel Boyd, I. M. S. (Bombay), has been selected for appointment on the administrative grade.

Major De Costa, I.M.S., a prominent Goanese, has been permitted to retire from the service.

WANTED—A THIRD GRADE HOSPITAL ASSISTANT to come to Burma on mutual transfer with the undersigned. Any one from Punjab or N.W.P. will be accepted. For particulars, address:—

H. A.,

C/o Manager, "Indian Medical Record."

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

NOTICE.

All members of the Indian Medical Association are kindly requested to send their names in full with their present addresses, clearly written, to the Secretary.

Members who have paid their subscriptions and who have not received the membership certificates are kindly requested to notify the same to the Secretary.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta from the 1st to the 22nd December 1900.

EXISTING MUNICIPAL LIMITS.

Year.	Week ending.	CHOLERA.		PLAGUE.				Small-pox.	Fever.	Bowel complaint.	All other diseases.	Total.	Total population according to the Census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.	Epidemic.	Sporadic.	Deaths.	Deaths.	Deaths.							
1900	1st Dec. ..	33	..	22	23	..	..	7	196	107	315	681	521	52.1
	8th " ..	32	..	22	19	..	..	20	232	136	315	754	57.7	57.7
	15th " ..	24	..	19	20	..	..	61	224	112	298	733	681,560	56.5
	22nd " ..	49	..	30	28	..	..	28	217	105	299	726	55.5	55.5

J. N. COOK, D.P.H., Health Officer of Calcutta.

Current Medical Literature.

MEDICINE.

Pathology and Etiology of Rheumatism.

C. R. MARSHALL, in the *New York Medical Journal*, says that the pathology and etiology of rheumatism are still not clear. The existence of lactic acid in the economy is a predisposing cause of the disease, but there is no conclusive evidence that it is the exciting cause. Reduction in the alkalinity of the blood is a prominent feature of the disease; this may follow the suppression of perspiration, the ingestion of food containing a high percentage of acid, or the absorption of products of acid fermentation in the gastrointestinal tract. Nutrition is inhibited by diminished oxidation; reduced alkalinity of the plasma means diminished oxidation and consequently retarded nutrition. Defective oxidation is most generally observed in warm and damp climates; the clear, cold, and dry air of winter acts as a stimulant to those processes, which are then so much accelerated that many of the phenomena characteristic of rheumatism are checked or fail to appear. The prompt and systematic administration of alkaline salicylates is the only safe plan to adopt in the treatment of the acute type of articular rheumatism. Salicylic acid is freely absorbed by the skin and may be applied in the form of an ointment; the physiologic effects of the salicylates are manifest in a short time, but no gastric complications occur. The application is covered with impermeable material.

Treatment of Sleeplessness.

DR. JOHN B. BRADBURY, in his Croonian lectures (*Brit. Med. Jour.*), remarks that the treatment of insomnia often resolves itself in a study of the causes. First, there are the irritative causes, as pain and uneasiness, such as children teething, or the presence of worms. Eye-strain or eczema keeps many an adult awake. Then we have the toxic causes, as alcohol, tobacco, the poisons of febrile diseases, conditions present in gout and rheumatism, and the toxins left in the system through bad circulation, kidney diseases, etc. Further, there are the mutual causes of grief, worry, shock and anxiety. There is usually in these cases a nervous temperament. There are also cases of insomnia due to change of habits and mode of life, such as late dinners, high altitudes, changing from day to night duty, or *vice versa*. No treatment of insomnia can be successful that is not deduced from a study of causes. But even though the causes have been sought out and removed, sleep may not return. The cells of the brain have become irritable. In mild cases, try bromides first. Paraldehyde is one of the best hypnotics. Chloramide is good and safer than chloral. Sulphonal is the best of the sulphones.

Hysterical Skin Affections.

RASCH records a case of factitious, vesicular, bullous, and gangrenous dermatitis, occurring in a young female servant, aged 18, with hysterical stigmata. She was under observation either as an out-patient or in-patient at the Copenhagen Communal Hospital, from October 1896 to October 1898, but it was only in March 1898 that the fraud was exposed by the patient confessing she had herself produced the original bullous eruption by means of cantharides plaster. An interesting point in the patient's family history was the fact that her father's brother and her mother's sister had suffered from mental disease. There was no sign of congenital syphilis, though the mother's history of eight confinements, two children only surviving, and abortions, pointed that way. Some of the old lesions presented keloidal scarring. The author points out that the factitious nature of these eruptions are but too frequently erroneously attributed to a purely vasomotor and tropho-neurotic origin. He gives some instances of published cases which were subsequently shown to have been self-induced. RASCH also refers to the view of the Salpêtrière School that gangrenous ulceration of the skin may occur as a symptom of hysteria, and points out that from the published accounts of such cases with which he is acquainted, an artificial origin cannot be excluded with certainty.—*Brit. Med. Jour.*

Pneumonic Plague treated by large Doses of Carbolic Acid.

J. BELL (*Lancet*) says:—A case of this disease ended in recovery in the Government Hospital at Hong-Kong. This form of plague is very fatal, and the writer knows of no case of recovery in Hong-Kong. The patient, a healthy man, aged 24, was admitted suffering from gonorrhoea. His temperature was 101 degrees, and, save for the local condition, he seemed well. Gradually he became extremely ill; three days after admission his temperature had risen to between 105 degrees and 106.4; he became apathetic, delirious, with dry, furred tongue and quick pulse; coarse râles developed in both lungs, with expectoration of thick, bloody sputum, which was found to be full of typical bacilli. A diagnosis of plague was made. There were no buboes.

Hypodermic injections of digitalis and strychnia were given every four hours, and 12 grains of pure carbolic acid in solution were given every three hours.

On the next day there was a marked change for the better. The temperature slowly fell to 102 degrees, and only rose to 103.4 degrees in the evening. The tongue was moister, the pulse became less rapid, and gained strength. Bacilli were still in the sputum.

Temperature became normal three days later, the lungs cleared up, the sputum ceased. Injections were given less frequently as symptoms abated. The carbolic acid was decreased after 48 hours to four hourly doses, and was stopped on the day the temperature fell to normal.

Convalescence was rapid. The disease was contracted some 14 days before admission to the hospital. The effect of the carbolic acid was most marked; 280 grains were taken without causing toxic symptoms.

Delirium Tremens in Moderate Drinkers.

REFERRING to a paper by Dr. ELMGREEN, of Milwaukee, in the *Medical Times*, in which he reports cases of delirium tremens in moderate consumers of alcohol, FRITCHARD concludes that the symptoms of delirium tremens, etc., are due in these cases to uremia coming from kidney disorders. His conclusions are stated as follows: (1) A renal disturbance is a constant accompaniment of uncomplicated delirium tremens. (2) The relation of time between the renal disturbance is an acute nephritis, which, as a rule, probably develops without any preceding chronic nephritis. (3) The course of the renal disturbance follows so closely, step by step, with the delirium, that there is good ground for assuming that there is a genetic connection between the two phenomena. (4) There are so many similar points in the two states which are notoriously brought about by an insufficiency of the renal functions—uremia and delirium tremens—that there is reason to assume that the delirium is an acute auto-intoxication-psychosis as a consequence of the insufficient kidney function, which is due to the acute nephritis. (5) The peculiar form that this psychosis takes on is dependent upon its developing in chronic alcoholics. (6) There is a probability that delirium tremens in pneumonia is dependent, not on the pneumotoxins directly, but on the always present renal lesion. He says finally that he has examined the urine of quite a number of beer and whisky drinkers, and finds that, when in average health, their kidneys are not quite normal, the urine being thin with a slight trace of albumin, a little renal epithelium and occasionally casts, if they are a little under the normal. If they take cold, the condition is aggravated. He doubts whether the cases in delirium tremens were normal before the attack, and whether the renal insufficiency actually developed on such virgin soil as assumed by RANTZ, who has studied the subject in *Hospitals Tidende*.

SURGERY.**Sterility in Man.**

R. BISS has made a study of sterility in the male, paying special attention to azoospermia due to obstruction in the system of sperm channels. He makes two classes of cases, according to the presence or absence of changes in the cellular tissue surrounding the seminiferous tubules. The most marked of these changes is the formation of a zone of hyaline tissue around the seminiferous tubules in the place of the normal flat connective-tissue cells which form the physiological sheath of the tubules. This zone of hyaline tissue cuts off the epithelium from its supply of nourishment, normally derived from the blood-vessels of the inter-tubular connective tissue. Degenerative changes of the epithelium accompany the formation of the hyaline rings. Where the hyaline zone is thin, we find the epithelium of the tubule either normal, even containing spermatozoa, or the spermatozoa are absent and we find only a few layers of epithelium, or even only one layer, the border-lines between the cells frequently becoming indistinct. There is, however, a distinct cavity of the tubule, which is sometimes filled with spermatozoa. With the further encroachment of the hyaline zone, the epithelium is reduced to a very thin, flat layer, resembling endothelium, and these tubules contain nothing but a few fragments of cells. In the most pronounced cases the lumen of the tubule disappears completely, and instead of a channel lined with epithelium, nothing is seen but a more or less wavy and hyaline mass of tissue with very few nuclei, without any trace of the normal testicular epithelium.—*Medical Times and Hospital Gazette*.

Subarachnoid Injections of Cocaine as a Substitute for General Anesthesia in all Operations below the Diaphragm, with Report of Nine Cases.

JOHN B. MURPHY says that an American, DR. LEONARD CORNING, demonstrated in 1884-85 that anesthesia could be produced in this way. OBENST, BIER, and others later took up the matter, but the man who really advanced it as a practical anesthetic is TUFFIER. The advantages of the procedure are: Ease of application; thorough analgesia of all the tissues below the diaphragm; the retention of the sense of touch; absence of the reflexes; consciousness of the patient; avoidance of the primary, intermediate and secondary sequences of the anesthetic, as cardiac phenomena, pulmonary lesions, and renal disturbance. Whether the cocaine will be found to interfere with the function of other organs time alone must determine. TUFFIER, in his extensive experience from last November to the 10th of August, has had no untoward results of any kind, and has secured complete analgesia in every case. Hysterectomies, salpingectomies, nephrectomies, pylorectomies, cholecystotomies, and operations of that class are performed by him regularly in accordance with this method. The author gives the technique of the method, and reports nine cases of his own.—*Chicago Clinic*.

Venomous Snakes, their Bites, and how to treat them.

JOSEPH McFARLAND says that, briefly outlined, the treatment of snake-bite is (1) immediate interruption of the circulation of the bitten member, so as to prevent absorp-

tion of the poison; (2) free incision and enlargement of the fang wounds and forcible suction to extract the poison; (3) hypodermic injection of three to six drops of a fresh ten per cent. watery solution of chloride of calcium into about a dozen different areas about the wound; (4) strychnine given hypodermically to stimulate the respiratory centre; (5) immediate and frequently repeated hypodermic injections of 10 to 20 c.c. of the antivenomous serum, or, as CALMETTE calls it, "antivenene." The most urgent need of the patient is for the immediate, unlimited administration of antivenene. It would be a wise precaution for persons, whose travels or occupations keep them in continual danger of snake-bites, to provide themselves with the remedy and carry it with them. There are many whose occupations of berry-picking, lumbering, mining, hunting, engineering, etc., carry them into wild and snake-infested countries, to whom the possession of a snake-venom antitoxin with even a limited application would come as a boon.—*International Medical Magazine*.

"Thimbles" for Massage and Stripping of the Seminal Vesicles.

J. R. EASTMAN thus describes an instrument he has devised and the method of its employment. The thimbles imitate in shape the slightly bent finger, and are of nickel-plated brass three inches long, thus adding about an inch and three-quarters to the length of the massaging fingers. The distal end is broadened to the width of an inch and swells rather flatly in its full breadth from the palmar surface. The patient stands with knees straight and body slightly bent forward at right angles, and the instrument is introduced with the palmar surface of the entering finger upward, the concavity of the thimble toward the sacrum. When the instrument has been gently introduced as far as possible, the perineal muscles having become relaxed, the finger and thimble should be so turned that the palmar surface of the finger faces the bladder. The broadened and projecting anterior face of the distal end of the thimble will now rest high up on the body of the vesicle or above it.

While gentle pressure is maintained, the thimble should be drawn slowly forward along the line of the vesicle with counter-pressure over the abdomen. By passing the instrument successively backward and forward, the vesicle may be thoroughly emptied.—*New York Medical Journal*.

Post-Operative Irrigation of the Bladder.

By continuous irrigation after suprapubic cystotomy, danger of infection and infiltration of urine is obviated. The wound heals by first intention, and if the bladder is painful, the hypersensitiveness is diminished. DAXDER related at the International Medical Congress that the recovery was surprisingly rapid in the two cases he described. The wound was sutured except where a GUYON-PERRINS tube was inserted, bringing the water from a reservoir above, the flow regulated by stopcocks. A Nelaton with irrigator was introduced into the bladder through the urethra, and the irrigation continued for four to six days.

OBSTETRICS AND GYNECOLOGY.**Prevention and Treatment of Post-partum Hemorrhage.**

DR. J. W. BYRNS says:—The causes of post-partum hemorrhage may be grouped under two heads: (a) Hemorrhage due to uterine atony; (b) wounds of the parturient canal without any necessary inertia. The great majority of cases come under (a). Among the conditions which lead the accoucheur to suspect the onset of post-partum hemorrhage are: (1) History of hemorrhage at previous confinements, rapidly succeeding pregnancies, want of excretion, elderly primiparae and pre-existing metritis. (2) Over-distention of the uterus, myomata, etc., preventing contraction, albuminuria, extreme mental depression and excitement of the vascular system. (3) Strong, quick pains in the second stage of labor, with long intervals and a rapid, jerking, low-tension pulse. The use of chloroform has no effect in causing post-partum hemorrhage. The two measures which should be adopted in every case to prevent post-partum hemorrhage are: (1) The proper management of the third stage of labor; and (2) the important principle never to deliver in the absence of pains. As to actual treatment, the first measure to be adopted is external uterine massage, followed in order by the hot-water douche, introduction of the aseptic hand into the uterine cavity for the removal of the placenta or clots, and gauze plugging of the uterus. The author does not approve of bimanual compression or of the injection of perchloride of iron. He has had no experience with the method of checking hemorrhage by the drawing downward of the uterus with tenaculum forceps. All wounds and lacerations should be stitched up. The subsequent anemia, if severe, should be treated by saline transfusion direct into the veins.

Myoma, Missed Labour, and Placenta Prævia.

HARTZ, Carlruhe (*Monatschr. f. Geburtsh. u. Gynäk.*, Berlin), relates the following case:—Towards the close of the second pregnancy of a woman, known for more than two years to have a myoma, shortly after a slight hemorrhage, the membranes ruptured, although there had been no pains. The edge of the placenta was felt through the internal os, which just admitted the finger. The myoma lay close to the brim, causing some deviation of the presenting head. Three days later the child died. Eighteen days after the membranes broke, during which time there had been practically no labour pains, it was decided to empty the uterus. On examination, it was found that the tumour had been partially forced into the slightly dilated os, forming an absolute impediment to delivery. The tumour was encapsulated piecemeal, and the mouth of the womb divided. Traction on the head failed, and an arm was brought down, but had to be amputated before the macerated foetus could be delivered. The placenta, which was found to be partially adherent, was removed and the cervical wound repaired, the patient making a good recovery.

Rectal Irrigation in Gynecology.

HYDE (*Amer. Gynec. and Obstet. Jour.*) mentions a number of cases exemplifying the value of rectal irrigation. Prolonged doubling lessens the normal vaginal acidity, which is avoided by rectal irrigation, which is also of

value as a substitute for vaginal douches in young girls, except where the vaginal douche is necessary for purposes of cleanliness. It has proved very satisfactory in acute and chronic ovarian and tubal fistulas, except possibly pyosalpinx, and in obstinate intestinal paralysis with sepsis after operation, repeated enemata and the free use of cathartics failed and recovery was doubtful. Six gallons of water at 115° F., injected into the rectum, made the intestines respond slightly after the second gallon, and strongly during the remainder of the injection. Large quantities of gas were evacuated, the patient became restless, and the pulse and temperature fell. Recovery was prompt. The dull, aching pain and distress in the pelvis, and slight tympanitis, sometimes following some pelvic operations, may be relieved by rectal irrigation, which is also useful in intestinal colic, and may be relieved in the same way.

Stitch Abscesses.

HOWARD LILIENTHAL says:—Do not always blame your suture material whenever you get a so-called stitch abscess. The great majority of these are not at all due to the sutures, but to the fact that there has been an infection due to the existence of noxious organisms in the deeper cutaneous layers, which cannot always be removed by the most thorough and most conscientious scrubbing. Careful washing with green soap and alcohol, followed by a large wet dressing of bichloride applied the day before an operation, will greatly diminish the number of these generally mis-called stitch abscesses.

Operative Treatment of Complete Prolapse of the Uterus in Elderly Women.

DR. A. LAPHORN SMITH, in the *Maritime Medical News*, comes to the following conclusions:—(1) That a woman suffering from procidentia or prolapse of the uterus out of the body, though not in much pain, is yet very miserable. (2) She is in some danger, owing to the cervix becoming ulcerated and the ulceration frequently becoming cancerous. (3) It is a mistake to think that she is too old to undergo an operation because she is forty-five, or fifty, or even seventy-five years of age. (4) Elderly women support the operations remarkably well; the operations require only from twenty to thirty minutes for performance; and even if we knew that the patients were going to live only a year afterward, it would be well worth while operating for the sake of the comfort it affords them. (5) The operation of vaginal hysterectomy is especially easy and safe in these cases, having not more than one per cent. of mortality and probably not even that. (6) Ventrofixation gives good results when the uterus is short, but fails when it is long. In some cases the vagina and bladder pull down and elongate the cervix after the foetus has been firmly attached to the abdominal wall. (7) In either case, whether hysterectomy or ventrofixation be employed, it should always be followed by an anterior and posterior colporrhaphy. (8) These patients should remain in bed for six weeks after their operation, in order to give time for the new tissue to become strong.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Role played by the Spleen in Pancreatic Digestion of Proteids.

HENRY F. BELLAMY says:—First noticing the experiments of SCHIFF, which seem to indicate that the splenic function is essential to the formation of trypsin in the pancreas, and the apparent contradiction to this from HEIDENHAIN'S discovery of the zymogens together with the later investigations of HERZEN, which confirm in a measure the ideas of SCHIFF and seem to indicate that the spleen furnishes the product of internal secretion causing in the pancreas the transformation of inert zymogens into active trypsin, BELLAMY next proceeds to notice the criticisms of LUBSANA and others of HERZEN'S views, and especially those of POPPELSKI, and points out their weakness. Extirpation of the spleen apparently produces in animals no serious disadvantage, but the actual loss according to HERZEN'S results is that there is almost complete cessation of proteid digestion by the pancreas, this function, being in such cases almost entirely performed by the stomach. The question as to the destiny of the zymogen which the pancreas continues to elaborate is answered by the suggestion that it becomes gradually transformed into trypsin by oxidation and other agencies along the intestinal tract. It has been noticed that the spleenless animals require more food, which can be explained not only by the loss of direct proteid substances in the alimentary tract, but also in that the para-pancreas normally going on to the duodenum to be converted into true pancreatic juice are, owing to the breakdown of the pancreas, no longer capable of being absorbed and assimilated by the organism. The stomach and pancreas, therefore, so far as the digestion of proteids is concerned, would appear not only to be in direct harmony with each other in the intact organism, but also if from any cause one or the other is thrown out of action, its work is assumed and efficiently carried on by the survivor.—*The Lancet*.

Some Experiments of the Relation between Audition and the Circulation of the Blood in the Head.

HAMILTON STILLSON relates some of his personal experiences in hearing. His left ear had for a time a slight tinnitus with slight lowering of hearing-acuity. The tinnitus was caused by tubal oedema. The writer then speaks of palpating the tube by means of the tongue thrust into the post-nasal space. Focusing the attention on the tinnitus would increase its intensity, and brushing the hairs at the external orifice of the auditory meatus would cause a different tinnitus—caused by the contraction of the muscles in that vicinity. Pressure on the mastoid bone increased the tinnitus and raised its pitch. Pressing against the mastoid tip of the tinnitic ear caused it to hear objective sounds louder and in a slightly higher pitch. Lying down increased the tinnitus and lessened the hearing-distance. With head suspended, in the tinnitic ear the hearing-power seemed at first slightly diminished and then increased, but no rhythm in the objective sound could be noticed. Moving the head to and fro in its vertical axis caused a peculiar bell-like tinnitus in both ears, more noticeable in the tinnitic one.

Pathology of Alcohol.

G. ROSENHELD says:—Twenty dogs were given alcohol on an empty stomach in doses from 12 to 27 c.c., continued for a long time. In every case in which more than four doses had been administered the liver was found in fatty degeneration, the fat constituting 17 to 38 per cent. of the organ. In a parallel series of tests, 60 gm. of sugar were administered with 35 to 30 c.c. of alcohol, and there was no fatty degeneration nor other symptoms of intoxication. The fat in the liver was even less than normal in this case.—*Centralblatt f. Inn. Medicin*.

Biological Studies with References to Pathology.

THEO. KLINGMANN experimented with spirogyra threads by placing several in water in which was immersed a piece of copper foil. A control of plain water was used. In the copper water the first change noted in the spirogyra was the cessation of the protoplasmic streaming, the protoplasm becoming granular, while the division of the protoplasmic cylinder and the granular evolution in the protoplasm followed, together with retraction of the outer part of the tube and destruction of the chlorophyll bands. The same pathological conditions can be brought about by the action of various bacterial toxins and toxic blood-serum. Of one hundred and fifty cases about one-third of the patients were in perfect health, the other two-thirds being patients suffering from various disorders, such as epilepsy, neurasthenia, hysteria, mania, pyæmia, pneumonia, syphilis, tuberculosis, erysipelas, typhoid fever, diphtheria, measles and other infectious diseases, alcoholism, gout, and rheumatism. After the blood has been obtained, it is diluted with 20 c.c. of water and thoroughly mixed; a few drops of the liquid are placed on a clean glass slide; a thread of spirogyra is put into this, and is observed under the microscope with about a No. 8 LEITZ objective. The water which is used for diluting the blood is tested by placing a few threads of spirogyra in a glass dish containing some of the water, and is allowed to stand a short time. If the water is non-toxic, the specimen is not altered. The time in which the alteration takes place varies directly with the amount of toxin and the species of spirogyra. While changes in the spirogyra take place in the toxic blood solution, the blood of healthy individuals yields negative results.—*Amer. Jour. of Med. Sciences*.

Some Observations on Renal Casts.

WALTER E. TOBIE says that since the centrifuge has come into more general use hyaline casts are found in many instances in which neither clinical history nor chemical examination would seem to point to their presence. Certainly there is no good reason for believing kidney disease to be increasing to the alarming extent that microscopical examination of urine might imply. Inasmuch as hyaline casts may be present for many years without symptoms pointing to their existence, these questions naturally suggest themselves: Is the mere presence of hyaline casts necessarily a grave omen? May not the disease be checked or even of itself cease to advance? May not hyaline casts be present in urine from kidneys whose excreting functions are practically normal?—*Boston Medical and Surgical Journal*.

Diphtheria Bacilli in Healthy Throats and Noses, with Report of Cases.

FRANCIS P. DERRY thus sums up the points which he especially wishes to emphasise: (1) Diphtheria bacilli are seldom found in the throats of those who have not been exposed to diphtheria. (2) The bacilli are more frequently found in those who have been exposed, especially in those living under poor hygienic conditions or in institutions. (3) The conditions of institution life which favor the growth of the bacilli in healthy throats are the living together of a large number of persons in a limited air space. (4) Healthy individuals with virulent bacilli in their throats can spread the disease. They are just as dangerous as mild or convalescent cases of diphtheria, and ought, therefore, to be detected and isolated. (5) Cultures ought to be made among those who have been exposed to diphtheria—(a) by physicians among the members of a family who have been exposed, (b) by inspectors in the schools, (c) by health officers under any circumstances when they think the disease is being, or may be spread by such individuals.—*Boston Medical and Surgical Journal*.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Essential Conditions for Habitation to Develop and Maintain Healthful Family Existence.

ROSA ENGELMANN makes a plea for the detached suburban home with its wholesome atmosphere as compared with even the model tenement of the city. No parks, public baths, or playgrounds can take the place of the open life out of town. Rapid and cheap transportation is one of the crying problems of the day, and should be made a political issue just as much as are sanitary environment, shorter hours of labor, etc. The dwelling places of the poor of Chicago are described and contrasted with what might be offered outside the city and its slums.

Cleansing of Teeth.

THE mouth is first to be rinsed, in order to remove coarse, loosely-adherent remains of food. The brush is next moistened; some mouth-wash is held in the mouth; the edges of the front teeth are brought together, and their external surfaces brushed up and down. The external surfaces of the molars are also to be brushed, especially in this way, from above downward.

The mouth is next to be widely opened, and the grinding surfaces of the bicusps and molars are to be brushed from before backward and from left to right. The inner surfaces as well as the interstices and angles of improperly implanted teeth are then to be cleansed.

The gums are, at the same time, to be freed from any deposits. The brush is then to be turned outward, and the mucous membrane of the cheek and the folds between them and the jaws cleansed. Finally, the tongue is brushed.

The dead superficial epithelial cells of the tongue, together with mucous, saliva, and bits of food, constitute the so-called "coating" of the tongue. Many persons use "tongue-scrappers" for the removal of this coating. The advantages of these tools are as doubtful as they are unappetising. The coating can be much more thoroughly and safely removed by the aid of the brush. Any tendency to nausea which may be provoked in the beginning quickly ceases.

It is of the utmost importance to accustom one's self to retain a mouthful of water in the mouth while using the brush, in order that the product of brushing may be immediately taken up by the fluid, and not simply pushed hither and thither, as is the case when the teeth are brushed with the mouth empty.

If while brushing the teeth air is slowly inspired through the mouth, the head properly inclined, and a suitable small brush employed, the advantages of the above-mentioned process will soon be apparent.—C. ROSE (*Dental Cosmos*).

Do You Breathe Right?

THE way a person breathes is a reliable index to his or her vitality. Large, thin nostrils, slow and deep respirations, are significant of pure blood and staying powers.

Correct breathing is both thoracic and abdominal. Not only are the lungs well ventilated during inspiration, but the abdominal walls expand, altering the position of all the organs, making changes in their blood-supply, exercising the muscular elements in the bands which attach and hold these organs in position, and in this way modifying tendencies to congestion, relaxation and prolapse.

Take a deep breath, and you will note that the abdominal organs slightly shift their position followed by a feeling of increased comfort and lightness.

Breathing should always be done through the nose to ventilate the chambers in the head, and keep them in health,

as well as to warm and purify the air before it passes over the more delicate laryngeal and tracheal mucous membranes.

The body should be held erect, a slight bending forward at the hips, and the chest braced, with shoulders thrown back and head up, as though the individual were suspended from the ceiling by a hook in the breast bone. This may seem uncomfortable at first, but soon becomes habitual. The sense of increased vital power is well worth the trouble of acquiring a proper carriage.

Concentrating the attention on any task interferes more or less with respiration. It becomes less frequent and more shallow. In time, a sense of constriction around head and chest, with restlessness, develop. This may be avoided to a great extent by periodically stopping work, stepping outdoors or to an open window, and breathing deeply and slowly for five or ten minutes.

This practice is warming, and will often alleviate insomnia. It promotes digestion, and tranquillises the nerves. It will often check an irritative cough. It will freshen the complexion and brighten the eyes. As a general tonic and vitaliser to improve function and consume body waste, the practice of deep, full-breathing, cannot be too highly commended.

Learn how to breathe, then make a business of the practice at regular intervals. Just as you brush your hair or clean your teeth. Don't make your lungs sore, your head giddy, by temporary excess of enthusiasm, and then abandon your efforts in disgust. A small beginning and gradual increase into perfected power is the right rule.

General Libel.

A VERY interesting libel case was before the Central Criminal Court on Tuesday. Mr. PETER ANDERSON GRAHAM surrendered to his bail on an indictment charging him with maliciously publishing a false and defamatory libel of and concerning the sanitary inspectors of England. The alleged libel appeared in a book called "The Revival of English Agriculture," in which the defendant had made charges against sanitary inspectors as a class. In the course of this book Mr. GRAHAM stated that these gentlemen exhibit laxity and corruption in the discharge of their public duties; he said they are guilty of winking at milk adulterations, and levying blackmail on milk-vendors. The legal proceedings were taken by the Sanitary Inspectors' Association, and their Council said they would offer no evidence and allow a verdict of not guilty to be returned, as they understood Mr. GRAHAM was prepared to withdraw his imputations, express regret for having made them, and would undertake not to publish them again. The defendant's counsel agreed to this course; indeed, he could hardly have done otherwise, though it is a pity that the case was not threshed out, as it involves the very interesting problem as to whether a man can be prosecuted for libelling a community. It has generally been accepted, for instance, that a man who opens a drug-store may, without any fear of libel proceedings, seek patronage on the ground that chemists, as a class, are robbers, and sell stale drugs. If the Sanitary Inspectors' Association had been able to fight their case to a legal decision, we suppose the Chemists' Defence Association, or other chemists' association, would have taken up cudgels against one or more of those enterprising persons and proprietors of medicines who are not too scrupulous in their advertisements about how they refer to chemists generally. Some of their statements would undoubtedly, if made in respect to an individual, be actionable.—*Chemist and Druggist*.

THERAPEUTICS & PHARMACOLOGY.**Dangers of Spinal Anesthesia.**

JOHN V. SHORMAKER, in reviewing this subject, states that he has seen a single injection give rise to alarming symptoms of respiratory failure. The procedure is likewise productive of marked pain. In order to avoid this effect, BIER and others have employed BOHLER's infiltration anesthesia as a preliminary measure. In some cases chill and fever have followed the injection. Severe and long-continued headache is not uncommon. Distressing nausea and vomiting have also been excited. Exceptionally staggering gait and sharp spinal pains were experienced on the day following the injection. In some patients profuse sweating, and in others marked debility, have been noted. Numbness and tingling have occurred. In certain cases anesthesia was not produced by the operation. It need not be mentioned that the operation should be undertaken with the most rigid aseptic precautions. Great caution in the use of this method should certainly be exercised.—*New York Med. Rec.*

Amylen Hydrate in Diabetes Insipidus.

W. NIESSEN (*Therap. Monatsheft*) relates the case of a patient suffering from polyuria who was given amylen hydrate for insomnia, with the unexpected result that the symptoms of his disease at once retrogressed. Following an extensive trial, the author concludes that small doses in many cases bring about a temporary improvement in the polyuria and polydipsia and, in a few, a permanent cure, thus making this drug, among the many others, worthy of consideration. The only drawbacks are the disagreeable taste and the insolubility of amylen hydrate, which can be obviated by ordering it in capsules, to be followed by a glass of beer or wine.

Iodides in Locomotor Ataxia.

ROUX, in a recent work on the sensory visceral derangements in tabes, shows that iodide may irritate the stomach, alter the mucosa, and cause gastritis, with serious consequences. The pain is felt in the lower thorax, especially the left side, and may be severe; it is felt an hour or two after eating, increases gradually, and then disappears before the next meal. Vomiting may ensue, and persistence in the iodide may finally produce typical gastric crises. These are distinguished from true crises by their gradual onset and disappearance, by their development after gastric irritation or at the menses, and by their suppression with a milk diet and discontinuance of the iodide.—*Journal of Nervous and Mental Diseases.*

Hypodermic Injections of Pilocarpin for Gall-stones.

POPHAM (*British Medical Journal*) writes that at the suggestion of Dr. MITCHELL, of Durban, he has recently employed in several cases of biliary colic pilocarpin hypodermically in ascending doses. The results were undoubtedly encouraging, and only once did the drug give rise to any unpleasant symptoms. The writer regards pilocarpin as more efficient than morphia in hepatic colic, and attributes the good results to the increase of secretions whereby the passages are lubricated and the expulsion of the stone facilitated.

Cod-liver Oil in Tuberculosis.

M. A. F. FLICQUE speaks of the unquestioned value of cod-liver oil in tuberculous disease. Small doses must be avoided; to obtain good results, from two to three ounces

a day must be administered. If the dose of oil is shaken up in a quart of strong beer, its disagreeable taste may be overcome. The following formula is said to render the oil agreeable:—

R	Olive oil	...	...	225 grains.
	Glycerin	...	...	120 "
	Oil of bitter almonds	...	...	105 "
	Sodium hypophosphite	...	...	2 "
	Calcium hypophosphite	...	...	4 "

M.

Make an emulsion. If the oil is given fresh and cold, or with the addition of lemon or orange, its tendency to be regurgitated may be overcome. The addition of 1-80 of a grain of strychnine aids the stomach in its tolerance of the oil.

For Hemorrhoids.

R	Vaseline	...	...	3i.
	Muriate of cocaine	...	...	gr. xij.
	Morphine	...	...	gr. vi.
	Calomel	...	...	gr. xl.

M. S. Apply locally night and morning. If itching is severe, apply menthol, one drachm to an ounce of vaseline.

—JOSEPH M. MATTHEWS.

For Dipomania.

R	Apomorphine	...	...	gr. iij.
	Tr. calumbe	...	...	3i.
	Tr. capsici	...	...	℥xv.
	Tr. nuc. vom.	...	...	3i.
	Tr. cinch. comp	...	...	3iss.

M. S. Small teaspoonful after meals in water.

—*Cronica Medica.*

Miraculous Cough-mixture.

MIRACULOUS cough-mixture is made as follows:—

Ac. sulph. arom.	...	...	3ss.
Vin. opii	...	...	3vj.
Vin. antimon.	...	...	3vj.
Syr. rheades	...	...	3vj.
Spt. chloroformi	...	...	3i.
Syrupi	...	...	ad 3xx.

The dose is a teaspoonful sipped occasionally.

Chronic Coryza in Infants.

R	Bismuth. salicylic.	...	...	aa 4
	Sodii benzoat	...	...	1-50
	Orthoform	...	...	0-50
	Menthol	...	...	0-50
	Talc	...	...	10

M. S. Insufflation.—*Le Progrès Médical.*

Ulcer Ointment.

ULCER ointment, which is so very effectual, may be made as follows:—

Hydrarg. sulph. rub.	...	...	gr. ij.
Zinci oxid	...	...	3ij.
Acid. carbolic	...	...	℥xxx.
Vaselin	...	...	3ss.
Lanolin.	...	...	3iss.

M.S.A.

Correspondence.

THE STUDENTS OF THE CALCUTTA MEDICAL COLLEGE AND L. M. Ss. LET LOOSE FROM IT.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to your remarks on the letter of a medical student headed as "How Students fare in the Calcutta Medical College," published in your issue of the 12th instant, I beg to observe that though the Calcutta Medical College was started by English officials, yet it cannot be denied that both the College and the Hospital are mainly supported by fees collected from native students and by donations and subscriptions from the natives. Not only the Medical College, but most of the other Colleges and Schools were first started by English Missionaries. In short, we owe our present state of advancement in the knowledge of the English language and of all the Western sciences to the British Government and to the British public, but that does not alter the significance of the points raised in the said letter, nor can that be cited as a reason for not treating native students with impartiality. When the qualifications for entering into the Calcutta Medical College were raised from the Entrance standard to the F. A. of the University, many students then got their admissions into the Medical College with a double purpose of going up for the B. A. examination, and at the same time of securing the requisite percentage of lectures in the Medical College for going up for the M. B. examination in the event of their failing to pass the former one, more facility to which purpose was given to them by the mode of lecturing in the Medical College than in other Colleges. These students would not, therefore, care much for their medical studies, at least for the first two years, so they were merely like birds of passage, ready to fly away on the advent of proper time. The introduction of the new rules for promotion by Dr. BOMFORD, by making a certain percentage of marks in each subject compulsory, efficiently checked the ingress of such students into the Medical College, and so far these rules had a salutary effect. At present, however, no student gets admission into the Medical College who is not earnest in his medical studies, so to raise the percentage of marks nearly to the University standard in the College examinations is now wholly uncalled for, and it looks nothing less than shutting the doors of the Medical College against the native students, for it will certainly tell much on the constitution of our young medical students to pass an examination each of the five years of their college career, which is unparalleled in any other college or country. I cannot agree with you that this highest possible standard of results at examinations, as you call this high-handedness of Dr. BOMFORD, will make better medical men of our students, and that it will prevent some stupid L. M. Ss. from coming out of the Calcutta Medical College. I cannot say that by raising the general standard of qualifications for entrance into the Medical College from the Entrance examination of the Calcutta University to the F. A., the Calcutta Medical College has sent any better medical men to the public than it or any other Indian Medical College has done before. On the contrary, it will surely let loose lots of

unqualified medical men on the public, for those students who enter the Medical College after passing the F. A. examination of the Calcutta University cannot, after one or two years, change the profession they sought to learn. The result will be that on failing to get promotion for a year or two they will cease to be regular students, and try to learn the profession by becoming extra-students.

You say that the Calcutta Medical College has let loose some stupid L. M. Ss. on the public. I dare say that even the Universities of Europe let loose no less stupid M. Bs. or M. Ds. occasionally. In my student days, while I was a clinical clerk in Dr. CHAKRAVARTY'S ward, one day Dr. CHAKRAVARTY having been prevented by illness from visiting his wards in the hospital asked the resident physician to see his patients. This resident physician was a young M. B. of the London University and held a senior Professorial Chair in the College and afterwards became one of the distinguished physicians in Calcutta. He prescribed plumbi acetat and acid sulph dil combined in the same mixture to a patient suffering from profuse hæmoptysis. Had not the house physician, a native Assistant Surgeon, pointed out to him the incompatibility of the mixture, for which he received thanks from the resident physician, the man would have probably died from bleeding.

From your remarks on the notorious "Stone" case of the Medical College Hospital, it would seem that, had the man's bladder been found coated with calcareous deposits, the mistake committed in diagnosing this case as one of vesical calculus might have been forgiven, even to a "Professor" of Surgery, while Professors FAYRER and CUTCLIFFE would most emphatically direct their students to bear in mind that they should not only feel the stone, but they should hear it, for no coating of calcareous matter which may be mistaken for a calculus can elicit a sound like a stone striking against a steel sound. I mention these two cases, not with the intention of disparaging any of these gentlemen, but only to show that it is not at all strange that some L. M. Ss. of the Calcutta Medical College should sometimes seem to be very stupid even in some trivial matters. There is a proverb in the Sanskrit language that "a man who has killed a hundred patients may be classed among physicians, but one who has killed a thousand ones is only to be called a healer of ailments." However, if really some stupid L. M. Ss. come out of the Calcutta Medical College, the fault lies more with the manner in which professors are appointed in it, as well as with the Examiners and the University authorities. In the first L. M. S. examination held in April last, Dr. GIBBONS allotted three-fourths of the marks set apart for practical examination in *Materia Medica* to identification of ten specimens of drugs, and only one-fourth to Practical Pharmacy; so many students, who were successful in identifying six or seven specimens of the drugs, by fair or foul means, but got no marks in Practical Pharmacy, must have passed, while those who got 50 per cent. of marks in Practical Pharmacy, but failed to identify a single specimen more of the drugs, got plucked. In the same manner a student who gets good marks in identifying instruments, but no marks in Operative Surgery, might also pass. Is it then to be wondered that some stupid L. M. Ss. should come out of the

Calcutta Medical College, and is it not probable that even in spite of Dr. BOMFORD's raising the percentage of marks in the class examinations such stupid L. M. Sc. will sometimes still slip out through his fingers!

Yours, &c.,
AN L. M. S.

Dated the 31st December 1900.

(Our correspondent's excellent letter deserves the attention of the College authorities.—ED., I.M.R.)

BRUSSELS M. D.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I shall be thankful if you will kindly allow me to state what I know of the above degree. A correspondent once asked the Editor of the British *Lancet* whether the *Licence* of an Irish Corporation is superior, as many in Ireland believed, to the medical *Degree* of England; to which the editor replied that it is a baseless opinion, however natural such an opinion might be in Ireland.

It appears to me, after reading the strictures of "M. D." on the Brussels degree, that the above self-complacent disparagement of others has been carried too far by "M. D." The following facts regarding the Brussels degree ought to disabuse his prejudiced mind:—

(1) Brussels M. D. is conferred after an examination conducted by nearly 14 or 15 Examiners on as many subjects, most of which are the advanced subjects of the profession. The examination is both oral and practical, and has been pronounced by the *Lancet*, the leading medical journal of England, as being "undoubtedly a good one" (*vide Lancet*, March 5, 1898, page 652), and also equal to the M. R. C. P. of London (*vide Lancet*, July 15, 1899, page 194).

(2) The *Lancet* says in the same place that this degree "is a good one, held by many practitioners of high standing." There are over 700 practitioners in England holding this degree, some of whom—as Doctor MATHEWS DUNCAN, the great obstetrician, and Doctor WILLIAM MURRELL, the great therapist—are well-known professors in London colleges and authorities in their respective departments.

(3) It is a stern fact, notwithstanding the show of philosophic doubt on the part of "M. D.," that a good many of the admittedly sound British diplomates (M.R.C.S., L.R.C.P., &c.) do get plucked in the examination. The latest figures are five failures out of nine.

(4) This degree has been acknowledged and entered by the General Medical Council as a *bona fide* foreign distinction. "M. D." might profitably spare a part of the contempt which he now professes to feel for the Brussels degree, for the prejudices and narrowness shown by certain cultured critics.

Yours, &c.,
NOT A BRUSSELS GRADUATE.

BOOK REVIEW & TRADE NOTICES.

MATERIA MEDICA FOR INDIA.

BY C. F. PONDER, M.B., C.M., AND D. HOOPER, F.R.S., F.L.S.

(Published by Thacker Spink & Co., 1901. Price Rs. 6.)

We have gone carefully through this book of 365 pages, and have failed to discover any special reason for its publication. Everything found in it is to be found in other books, and much that is to be found in other modern books is not to be found in this. If the object of the compilers was simply to put together in one book all the drugs and preparations of the British Pharmacopoeia that are to be procured in some form or other from indigenous dealers in India, then the absence of fuller details is a serious drawback. To present the student, or the Indian practitioner, with so incomplete a work on Indian drugs is simply to create confusion in his mind. The price, six rupees, is too tall for such a book. We venture to offer the suggestion that if the authors ever desire to make a second edition of their work, they should consult some experienced Indian practitioners, since neither of them can be credited with Indian "experience."

Messrs. ALLEN AND HANBURY, LIMITED, are introducing to the medical profession a new preparation named Byno-hæmoglobin, which is a combination of pure hæmoglobin prepared from fresh blood by special processes with their fluid extract of malt, Bynin, one dram of hæmoglobin being present in every ounce of the preparation. It contains 0.16 per cent. of iron in organic combination, and has no added iron present. The hæmoglobin is dissolved in the Bynin, and nothing additional is introduced, so that the blood-forming powers of the former are associated with the digestive and strengthening properties of the latter. It constitutes a thick, dark-red fluid of a very sanguineous look when dissolved. It contains a large amount of albumen, and reacts strongly with guaiacum and ozonic ether. Doubtless it will prove a most valuable remedial agent for those who can get over the nauseating idea associated with its blood-like appearance.

BURROUGH'S AND WELLCOME'S MEDICAL DIARY FOR 1901.

This handsome, handy and exceedingly useful Diary comes as a real boon to the medical practitioner. It simply puts all other medical diaries into the background by furnishing a large fund of the most useful information to the busy medical man. As a *visiting day book* it is most convenient. It is to be had from Mr. Charles W. White, Bombay.

Government Medical Gazettes.

BOMBAY.

Lieut.-Col. W. G. H. Henderson, F.R.C.S., I.M.S., is apptd. to be a nominated commr. of the Poona Suburban Municipality, *vice* Lieut.-Col. J. P. Greany, M.D., I.M.S., resigned.

Lieut.-Col. C. F. Willis, I.M.S., is apptd. to be a nominated commr. of the Malcolmpeth Municipality in the Satara Dist., *vice* Lieut.-Col. D. C. Davidson, I. M. S., resigned.

Capt. S. Evans, M.B., I.M.S., and Major John Grimmin, V.C., I.M.S., respectively delivered over and received ch. of the office of the Health Officer of the Port of Bombay on 16th Nov, 1900.

CENTRAL PROVINCES.

The following transfers are ordered among Civil Hosp. Assts.:-

Balwant Lakshman, doing duty at Nagpur, to Janjgir Branch Dispy. in Bilaspur Dist.

Bhagwandass, from Janjgir Branch Dispy. to Pachmarhi Civil Dispy.

Abdul Aziz, from Pachmarhi Civil Dispy. to duty at Jubbulpore.

Civil H. sp. Asst. Baliram, doing duty under the orders of the Civil Surgn., Nagpur, to the Sindi Branch Dispy. in the Wardha Dist.

Civil Hosp. Asst. Binode Behari Burdhan from the Sindi Branch Dispy. to the Sohagpur Branch Dispy. in the Hoshangabad Dist.

Civil Hosp. Asst. Sitaram Rupchand from the Sohagpur Branch Dispy. to the Khandwa Main Dispy., in the Nimar Dist.

Civil Hosp. Asst. Saiyid Muhammad Hyder Husain Hydri from the Khandwa Main Dispy. to the Buti Dispy., Nagpur.

The services of Civil Hosp. Asst. Kashinath Gopal being no longer required for famine duty in the Civil Dept. in the Nagpur Dist., he is directed to do gen. duty under the orders of the Civil Surgn., Nagpur.

Privilege leave for three months is granted to Civil Hosp. Asst. Kashinath Gopal, doing duty under the orders of the Civil Surgn., Nagpur, from the 17th Nov. 1900.

Privilege leave for three months is granted to Civil Hosp. Asst. Narayan Vinayak, Soman, doing duty under the orders of the Civil Surgn., Nagpur, from the date on which he is permitted to avail himself of the same.

Civil Hosp. Asst. Jagir Parshad, attached to the Jabera Branch Dispy. in the Damoh Dist., is reduced to the 2nd grade by order of the Chief Commr. for a period of six months, from the 8th Nov. 1900.

Civil Hosp. Asst. Abdulla Khan, doing duty under the orders of the Civil Surgn., Nimar, is tempy. posted to the ch. of the Patan Branch Dispy. in the Jubbulpore Dist. during the absence on leave of Civil Hosp. Asst. Saiyid Mehdi Husain.

The services of Civil Hosp. Asst. Dallava Nand Das being no longer required for famine duty in the Civil Dept. in the Raipur Dist., he is directed to do gen. duty under the orders of the Civil Surgn. there.

Civil Hosp. Asst. Bhondulal of the Mal Dispy. in the Chanda Dist. was placed on famine duty in the Civil Dept. in addn. to his own duties, from the 10th June 1900.

Civil Hosp. Asst. Ashmat Ali, on return from famine work under the P. W. D. is tempy. posted to the Behir Branch Dispy. in the Balaghat Dist. during the absence on leave of Civil Hosp. Asst. Abdul Karim.

Civil Hosp. Asst. Kharad Singh Thakur, doing duty under the orders of the Civil Surgn., Jubbulpore, held ch. of the med. arrangements at the Bharaghat Fair in that dist. from the 4th to the 12th Nov. 1900.

Civil Hosp. Asst. Srikrishna Rao, attached to the Police Hosp., Chanda, is tempy. transferred to Sironcha, to hold ch. of the Dispy. there, during the absence on leave of Civil Hosp. Asst. G. Ramiah Naidu.

Civil Hosp. Asst. Dashrath Balwant, doing duty under the orders of the Civil Surgn., Wardha, is tempy. posted to the Police Hosp., Chanda, in place of Civil Hosp. Asst. Srikrishna Rao.

Furlough for two years is granted to Civil Hosp. Asst. Ashraf Husain, doing duty under the orders of the Civil Surgn., Nagpur, from the date he is permitted to avail himself of the same.

The services of Civil Hosp. Asst. Wizarat Ali being no longer required by the P. W. Dept., he is directed to do genl. duty under the orders of the Civil Surgn., Betul, from the 9th Sept. 1900.

N.-W. P. AND OUDH.

Senior Asst. Surgn. Beni Madhab Dass, in ch. Bhinga Dispy., Bahraich, leave on med. certificate for nine months, from the 28th Oct. 1900.

Hosp. Asst. Chheda Lal, attached to the Ikauna Branch Dispy., held ch. of the Bhinga Dispy., Bahraich, during the absence on leave of Senior Asst. Surgn. Beni Madhab Dass, from the 28th Oct. to 19th Nov. 1900.

The undermentioned Civil Asst. Surgns. of the Provl. Est., N.-W. P. and Oudh, having passed the Septennial Exam. on

the 5th Nov. 1900, are promoted to the next higher grade from the dates mentioned against their names :-

Hari Gopal Chatterji, to be 1st grade from 1st Nov. 1900.

Shankar Das, to be 2nd grade from 2nd Aug. 1900.

The services of Lieut.-Col. A. R. W. Sedgfield, M.B., I.M.S. (Bengal), are replaced at the disposal of the Mily. Dept.

The services of Capt. W. H. Orr, I.M.S. (Bengal), are placed tempy. at the disposal of the Govt. of the N.-W. P. and Oudh. The services of the undermentioned officers are placed tempy. at the disposal of the Mily. Dept.:-

Lieut.-Col. Cooverjee Cawsajee Vaid, I.M.S. (Bengal.)

Major L. J. Piesani, F.R.C.S., I.M.S. (Bengal.)

Capt. H. W. Orr, I.M.S., whose services have been placed tempy. at the disposal of this Govt., to officiate as Civil Surgn., and to be posted to the Mainpuri dist.

The services of the undermentioned officers are placed tempy. at the disposal of the Mily. Dept.:-

Lieut.-Col. F. R. Swaine, M.B., I.M.S. (Bengal); Major Merwanji Karasji Cursetji Sanjana, I.M.S. (Madras); Major Hormasji Hakim, I.M.S. (Madras); Major Karasji Hormasji Mistri, I.M.S. (Bombay); Major A. J. O'Hara, I.M.S. (Madras); Major Upendra Nath Mukerji, M.B., I.M.S. (Bengal); Major J. R. Adie, M.B., I.M.S. (Bengal); Major G. B. French, M.B., I.M.S. (Bengal); Major J. Garvie, M.B., C.M., I.M.S. (Bengal); Major Kanta Prasad, M.B., I.M.S. (Bengal); Capt. S. E. Prall, M.B., I.M.S. (Bombay); Capt. E. V. Hugo, M.D., I.M.S. (Bengal); Capt. G. T. Birdwood, M.D., I.M.S. (Bengal); Capt. O. Thompson, M.B., I.M.S. (Bengal); Capt. W. D. Hayward, M.B., I.M.S. (Bengal); Capt. J. Stephenson, M.B., I.M.S. (Bengal); Capt. A. Hooton, I.M.S. (Bombay); Capt. A. W. R. Cochrane, M.B., F.R.C.S., I.M.S. (Bengal); Major J. W. Rodgers, I.M.S. (Bengal); Major F. C. Pereira, M.B., I.M.S. (Madras); Capt. J. M. Crawford, M.B., I.M.S. (Bengal); Capt. J. S. N. Lumden, M.B., I.M.S. (Bengal); Capt. Robert King Mitter, M.B., I.M.S. (Madras); Capt. H. A. Smith, M.B., I.M.S. (Bengal); Capt. D. R. Green, M.D., I.M.S. (Bengal); Capt. P. C. Gabbett, I.M.S. (Madras); Capt. C. Milne, I.M.S. (Bengal); Capt. B. B. Chatterton, M.D., F.R.C.S., I.M.S. (Bengal); Capt. T. A. O. Langston, I.M.S. (Bengal); Capt. T. Stodart, M.B., I.M.S. (Madras); Capt. E. S. Peck, M.B., I.M.S. (Bengal); Capt. E. C. MacLeod, I.M.S. (Bengal); Capt. H. M. Moore, I.M.S. (Bombay); Capt. C. J. Ryberson, M.B., I.M.S. (Bengal); Capt. A. F. Stevens, I.M.S. (Bengal); Capt. E. M. Illington, I.M.S. (Madras); Capt. H. A. F. Knapton, I.M.S. (Bombay); Capt. C. B. Harrison, M.B., I.M.S. (Madras); Capt. T. B. Kelly, F.R.C.S., I.M.S.; Capt. R. H. Price, M.B., I.M.S.

Civil Asst. Surgn. Masha Allah Khan, Lecturer on Materia Medica, Agra Med. School, and in ch. of Thomason Hosp., Agra, privilege leave for two months.

Civil Asst. Surgn. E. H. Thomas, on being relieved by Asst. Surgn. Nobin Chandra Chakravarti, Bai Bahadur, to officiate as Lecturer on Materia Medica Agra Med. School, and in ch. of Thomason Hosp. Agra, vice Asst. Surgn. Masha Allah Khan.

PUNJAB.

Hosp. Asst. Narsingh Das, Allpur Dispy., Muzaffargarh Dist., was placed on cholera duty in that dist. from the 7th to the 15th Nov. 1900. He rejoined his dispy.

Asst. Surgn. Feroze-ud-din was apptd. to do gen. duty at the Ferozepore Civil Hosp. on the 3rd Nov. 1900.

Hosp. Asst. Hafiz Ali, N.-W. Ry., Jind Section, was transferred, at his own expense, to the N.-W. Ry., Bhatinda Section, on the 29th Aug. 1900, relieving Hosp. Asst. Laxba Ram, who joined the Jind Section on the 31st Aug. 1900.

On being relieved of the ch. of the Chinot Dispy., Jhang Dist., Tempy. Asst. Surgn. Uttam Chand was placed on plague duty in the Jullundur and Hoshiarpur Dist. from the 28th Nov. 1900. vice Asst. Surgn. Udal Bhan, Imperial List, who was placed on gen. duty at Jullundur from the 1st Dec. 1900.

Hosp. Asst. Aulad Hussain was placed on gen. duty at Sialkot from the 23rd Nov. 1900.

The following 3rd Grade Asst. Surgns. having passed the Septennial Professional Exam. of Asst. Surgns. held on the 5th Nov. 1900, are promoted to the 2nd Grade from the dates noted against their names :-

Bhai Narain Singh; Munsifi Ala Jowaya.

On transfer from the Kotgarh Dispy., Simla Dist., Hosp. Asst. Hardial was apptd. to the ch. of the N.-W. Ry. Hosp., Umballa Cantonment, on the 20th Nov. 1900, relieving Hosp. Asst. Harnam Singh.

Hosp. Asst. Muhammad Ismail Khan, Garhshankar Dispy., Hoshiarpur Dist., obtained fifty days' privilege leave, and was relieved of his duties on the 1st Dec. 1900 by Hosp. Asst. Amir-ud-din, transferred from Hoshiarpur.

Hosp. Asst. Hussein Shah, Tolumba Dispy., Mooltan Dist., obtained two-months' privilege leave, and was relieved of his duties on the 1st Oct. 1900 by Hosp. Asst. Gela Ram, transferred from Montgomery.

On reversion from the plague duty, Gurdaspur Dist., Hosp. Asst. Sultan Ali rejoined the Batala Dispy. in the same dist. on the 1st Dec. 1900.

Hosp. Asst. Ghulam Rasul, Tobana Dispy., Himar Dist., was granted one month's privilege leave, and was relieved of his duties on the 30th Nov. 1900 by Hosp. Asst. Brij Lal, on itinerating duty in Hissar Dist.

Hosp. Asst. Bhag Mal resumed ch. of the Kaithal Dispy., Karnal Dist., on the 28th Nov. 1900, relieving Hosp. Asst. Sharif Hussain.

Hosp. Asst. Sharif Hussain was apptd. to the ch. of the Karnal City Dispy., on the 7th Dec. 1900, relieving Hosp. Asst. Abbas Ali, who was placed on gen. duty at Karnal.

G. O. C. C.

Lieut. G. King, M.B., I.M.S., to the offg. med. ch. of the regiment, *vice* Capt. T. E. Watson, M.B., I.M.S., proceeded on field service to China.

Capt. R. W. Knox, M.B., I.M.S., to the offg. med. ch. of the regiment, *vice* Capt. E. H. Sharman, I.M.S., proceeded on field service to China.

The undermentioned officers are granted leave out of India :—

Royal Army Medical Corps.—Maj. S. C. Philson, for three months, on private affairs.

Maj. J. O. Weir, R. A. M. C., to be Sany. Offr., Punjab Command, from 1st Oct. 1900.

Maj. L. P. Mumby, R. A. M. C., to be Sany. Offr., Bengal Command, from the date on which he assumes ch. of the duties thereof.

Maj. J. R. Forrest, R. A. M. C., to officiate as Sany. Offr., Bengal Command, from the 1st Oct. 1900, until the return from leave of Maj. L. P. Mumby, R. A. M. C.

The undermentioned officers are granted leave out of India :—

Army Medical Staff.—Surgn.-Gen. W. A. Catherwood, M.D., for six months on med. certificate.

Lieut.-Col. W. T. Johnston, R. A. M. C., for six months on med. certificate.

MADRAS.

Capt. Gerald Godfray Giffard, I. M. S., to act as Dist. Med. and Sany. Offr. with med. ch. of Central Jail, Trichinopoly, during the employment of Lieut.-Col. W. F. Thomas, I. M. S., on other duty.

Mr. Charles Arthur Lafrenais to act as Dist. Med. and Sany. Offr., Godavari, during the employment of Major A. J. O'Hara, I. M. S., on other duty.

Surgn. Lieut. William Stokes, M.B., C. M., out of India, for ten months from 1st. Feb. 1901.

The following notification of the Government of India is republished :—

Home Dept., Medical, 7th Dec. 1900.

The services of the undermentioned offrs. are placed tempy. at the disposal of the Mily. Dept :—

Lieut.-Col. S. C. Sarkies, I. M. S. (Madras).

Capt. W. C. Vickers, M. B., I. M. S. (Madras).

BURMA.

Hosp. Asst. G. Francis assumed ch. at the Civil Hosp., Mingin, Upper Chindwin dist., on the 22nd Nov. 1900.

Hosp. Asst. Mahomed Haniff relinquished ch. at the Gen. Hosp., Rangoon, on the 15th Nov. 1900, and assumed ch. at the Police Hosp., Kintat, Upper Chindwin dist., on the 25th Nov. 1900.

Hosp. Asst. Salik Ram relinquished ch. at the Civil Hosp., Mingin, Upper Chindwin dist., on the 22nd Nov. 1900, and assumed ch. at the Civil Hosp., Kalewa, Upper Chindwin dist., on the 27th Nov. 1900.

Hosp. Asst. P. C. Rai, on return from leave, assumed ch. at the Civil Hosp., Wundwin, Meiktila dist., on the 6th Dec. 1900.

Hosp. Asst. Sawan Singh, on transfer to the Southern Shan States, relinquished ch. at the Civil Hosp., Wundwin, Meiktila dist., on the 6th Dec. 1900.

Hosp. Asst. Dhanaswar Panda relinquished ch. at the Police Hosp., Lashio, Northern Shan States, on the 4th Dec. 1900, and assumed ch. of duties with Capt. Rainey's escort on the 5th Dec. 1900.

Hosp. Asst. Ghulam Mustafa assumed ch. of additional duties at the Police Hosp., Lashio, Northern Shan States, on the 9th Dec. 1900.

Hosp. Asst. Lakmi Dass relinquished ch. at the Police Hosp., Myitkyina, on the 30th Nov. 1900, and assumed ch. at the Police Hosp., Mogaung, on the 1st Dec. 1900.

Hosp. Asst. Aubaranam Pillay held ch. of additional duties at the Police Hosp., Mogaung, from the 16th Nov. 1900 to the 25th Nov. 1900.

Hosp. Asst. G. Govindasawmy Naidu relinquished ch. at the Police Hosp., Myitkyina, on the 2nd Dec. 1900, and assumed ch. of his duties with the Sadan escort on the 3rd Dec. 1900.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

JAMES.—On December 6th, 1900, at Sunnyholme, East Cowes, Isle of Wight, the wife of Captain S. P. James, M.B., I. M. S., Lond., of a daughter.

MARRIAGE.

KNOX.—LOCH.—At Holy Trinity Church, Allahabad, on New Year's Eve, Robert Welland Knox, Captain, Indian Medical Service, third son of Mr. Justice Knox, to Lillian Margaret, third daughter of the late Colonel John Lewis Loch, late Inspector-General of Police, Central Provinces.

NOTICES TO CORRESPONDENTS.

R. Y. R. (Sunderabad).—Your paper has been received, and will find early publication.

A. D. H.—Write a week before you are leaving.

G. K. T. (Madras).—Any practitioner holding British degrees or diplomas is eligible for the Brussels M.D.

H. A. R.—The *Record* published the special leave rules for medical men employed on plague duty. See back numbers.

G. K. (Satara).—See back numbers of the *Record* for the information you need.

E. S. P. (Lucknow).—See last number.

J. T. P.—See this number.

B. M. K.—Send in your reports, and they will receive attention.

C. B. B. (Saharanpur).—Apply to the Director-General, I. M. S.

E. F. (Peshawar).—Read Council Report last number.

J. P. M. (Dholera).—Your remedy lies in showing your own special merits over the treatment of quacks.

S. M. P. (Phulera).—Apply to the Director-General, I. M. S.

E. H. C. L.—The regulations apply to M. Ps. The Entrance Examination of any Indian University exempts from matriculation for the diplomas of all the Corporations of Great Britain and Ireland.

S. K. C. (Ahmedabad).—The diplomas of L. R. C. S. and P. C. can only be obtained in England, Ireland and Scotland. Any Indian student may win them by examination. There are three bogus medical schools in Calcutta, but their certificates of qualification are empty and worthless titles. No self-respecting man can possibly care to have them.

R. K. M. (Jogati).—See back numbers of the *Record*.

M. L. V. (Aligarh).—All men and animals bitten by rabid dogs do not become rabid. Municipalities should not poison or destroy healthy dogs, but owners of dogs should not allow them to stray about when rabid dogs are rampant. It is reported that for every 10,000 cases of dog-bite, one is only a victim to rabies. Jackals and foxes become rabid, and their bites are as bad as those of rabid dogs.

T. D. T. (Vellore).—Many thanks.

ORIGINAL ARTICLES.

THE MANAGEMENT OF NORMAL LABOR, INCLUDING THE USE OF THE FORCEPS.*

BY AUSTIN FLINT, JR., M.D.,
New York.

NORMAL labor, understood in a somewhat wider sense than the strictly literal, includes the vast majority of obstetrical cases. Labor may be normal in the sense that all conditions are present that conduce to the greatest safety of both mother and child, and still may present wide variations as regards its duration, the character of the labor-pains, and various other conditions. Its proper management is perhaps more far-reaching in its effects, for good or for harm, than mismanagement in the comparatively few abnormal cases.

Of late years, advances in obstetrical practice have been made chiefly along the lines of improved methods of carrying out antiseptic and aseptic details and in obstetric surgery. Statistics as regards mortality have shown a corresponding improvement, and it is now the aim of obstetricians to show a corresponding improvement in morbidity. In hospital practice the mortality has been reduced to about one-half of one per cent. Morbidity statistics vary between four or five per cent. and as much as twenty-five per cent.

In a general way, the fewer the examinations and the less interference of any kind that is allowed, the smaller becomes the percentage of temperature cases. If we remember that a large proportion of these cases are normal at the start, as regards presentation and position, and that the large percentage of morbidity is due to some fault in the management, the most important principle in the management would be non-interference. It is not enough to conduct a case with the result that "mother and child lived," but the result should be that the mother recovered perfect health, and the baby was strong and healthy also. To make this the rule in practice requires a close and serious study, and the exhibition of a good deal of skill even in so-called normal cases. The general indication in treatment is to do everything that will limit the suffering to the smallest degree consistent with the best interests of mother and child.

In a paper which is to cover so wide a field, and which must be limited in time, a comprehensive review of the management of normal cases is impossible. It is also difficult to pick out the important details of management, and to omit other details, all of which have a direct bearing on the ultimate results. Perhaps the most direct is to give a brief review of the technique in the conduct of a case, with reference more particularly to private practice.

While not wishing to go outside the scope of the title of this paper, I believe a careful physical examination at the end of the eighth month of pregnancy is necessary, and that it partially takes the place of a similar examination at the beginning of labor. If such an examination can be made, nearly all danger of infection and subsequent fever is avoided, and very valuable information is

obtained. A diagnosis at this time will usually hold good at the time when labor actually begins, and especially in the primipara, for presentation and position rarely change during the last month of pregnancy.

The examination should, of course, include pelvic mensuration. The patient should be instructed to take daily walks during the last month of pregnancy and up to the very beginning of labor. The results of these daily walks are very satisfactory. They favor softening of the lower segment of the uterus and vagina, allow the head to sink through the pelvic brim, and lessen the liability to chance in position. The softening also renders dilatation easier, and shortens the first stage of labor.

A consideration of the management of actual labor is conveniently divided into the management of the three stages.

The First Stage.—If it has been possible to make an examination at the eighth month, the examination during the first stage is very much simplified; this examination, when the patient's condition will admit, is preceded by a warm bath, the external genitals are cleansed with green soap and water, an enema is given, and a sterilised gauze pad is placed over the vulva. After the usual sterilisation of the hands, an external examination is made, and finally an internal examination. This is done to verify the diagnosis previously made, and to ascertain the progress since the beginning of labor. It is better to make a long and careful examination at this time than to make a series of short and incomplete examinations. If the case can be diagnosed as normal, the management consists almost entirely in observation until nearly the end of this stage. The patient is allowed to assume any position that is most comfortable, the upright being preferred as long as possible. The nurse should be instructed to see that the patient's bladder is emptied at hourly intervals. Toward the end of this stage the patient should be put to bed; and in the majority of cases an anæsthetic may be used. Ether used in small quantities during each pain seems gradually to be displacing chloroform for this purpose, and it can be used in exactly the same way.

I often aid manually in the dilatation of the cervix toward the end of the stage if progress appears to be slow. The rule to preserve the bag of waters as long as possible, particularly in primipara, deserves mention. As the physician gains experience, the number of necessary examinations becomes less and less. The advantages of infrequent examinations are too well known to require further discussion.

The Second Stage.—No special intervention is required during this stage until the head reaches the pelvic floor. Time does not permit of even a brief outline of the measures designed to preserve the perineum from rupture. The principle underlying all methods is to secure the dilatation of the vulva before allowing the head to pass; and under normal conditions this takes place by a slow and regular advance of the head. An anæsthetic is of great advantage in many cases, the quantity being determined not only by the degree of suffering, but by the slowness or rapidity with which the child's head advances. Those who are accustomed to a frequent use of anæsthetics will undoubtedly be

* Read before the New York State Medical Association, 16th October 1900.

compelled oftener than others to use the forceps; and so far as the integrity of the pelvic floor is concerned, undue delay in delivery is almost as dangerous as haste.

In my opinion the use of the forceps, when the head is at the outlet of the pelvis, is too infrequent. Its proper use is an art, but an art not more difficult to acquire than the proper delivery of the head and shoulders through the vulva without the use of the forceps. The mistake of the beginner is haste. The principles governing methods of "preservation of the perineum" apply with equal force in a forceps delivery and in an uncomplicated delivery.

Time, with a slow, gradual advance of the presenting part, will produce the dilatation of the vulvar orifice exactly as it does dilatation of the cervical canal. Under normal conditions, even a small orifice will dilate under the influence of repeated advances and recessions of the presenting part, until the time comes when delivery may be safely accomplished. If this takes place from the influence of the pains alone, any interference other than regulating the rapidity of these advances is unnecessary. If the pains are too feeble to cause the head to advance regularly, they may be stimulated. The withdrawal of the anæsthetic, if one is used, or the substitution of ether for chloroform, is often all that is necessary. The uterine contractions can then be reinforced by voluntary efforts at expulsion. Occasionally a stimulant produces this effect. Ergot, of course, should never be used. As soon, however, as the presenting part ceases to advance and stimulation or withholding the anæsthetic does not cause advance, the low forceps operation is indicated. It is futile to wait any definite time in the hope that the propulsive qualities of the pains will reappear. Artificial extraction by means of the forceps is safer both for the mother and for the child than a waiting policy. The forceps should be used in imitation of normal pains. Traction should be slow, gradually, increasing in force until the soft parts in front of the head are put upon the stretch, then the head should be held for about a minute, followed by a slow and gradual relaxation of the traction force until the artificial pain has passed. A few minutes should then be allowed for a return of the circulation in the parts subjected to pressure, when the operation should be repeated.

Under the normal conditions that I am considering, delivery with an intact pelvic floor can be accomplished in a very large proportion of cases. In a general way, the same results can be accomplished by the forceps when the head has partially descended. Such operations are called median forceps operations, and are divided into two classes: (1) When the head is still within the cervix; (2) when the head is outside the cervix. In the latter instance the operation is the same as in the ordinary low forceps operation, except that the blades should be so applied that they aid the incomplete rotation. This requires a little more skill in their application, but it is usually accomplished with ease. In the former instance, with the head still within the cervix, as in high operations, the danger is great, and the procedure becomes a major operation. This should never be undertaken unless there is some special indication; and the case is then outside the scope of this paper.

Immediately after the delivery of the head, the mouth and eyes should be wiped out. The advantage of clearing the fauces of mucus before the first effort at inspiration is very great. The child is prevented from drawing mucus into its lungs; and when the mouth is cleared, as a routine practice, partial asphyxiation is very much less frequent. While apparently only a minor point, this is well worthy of more general adoption.

The Third Stage.—Personal observation of the conduct of labor cases by students has shown that the interval between the second and third stage, or the third stage itself, is the time when infection is most likely to occur. It is rarely that any internal examination is required after the birth of the child.

Before any attempt to deliver the placenta is made, the hands should be re-sterilized; clean towels are placed under the patient's hips, and the usual preparations for a possible hæmorrhage are made.

During this time the nurse maintains pressure over the fundus; and after an interval of twenty or thirty minutes the placenta is expressed. This interval may be made shorter if the uterus is firm and well contracted, or longer if the uterus is flabby. If the cord has been tied in two places, it is usual to cut the ligature or to cut off the placental end of the cord behind the ligature, so that the two or three ounces of blood which the placenta contains can escape. This reduces the bulk of the placenta and makes its expression a little easier.

After the delivery of the placenta, it is my custom to give a hot sterile douche. This stimulates the uterus to contract, cleanses the vagina of all clots, and allows a thorough inspection of the vulva and vagina. Tears that are slight are then easily seen, and can be immediately repaired. Nothing conduces to the comfort of a patient more than perfect cleanliness; and even slight tears in the vagina may be starting-points of infection. The records of cases in private practice show that, of patients who had a perfectly normal temperature during the puerperium, nearly all had no tear in the vagina or vulva. Should any laceration occur, an immediate repair should of course be made.

In this brief review of the management of normal cases nothing has been said that is absolutely new. I have endeavored merely to emphasise some of the more important points in the management which are likely to be carelessly performed by the general practitioner. The points, briefly reviewed, are:—

First.—The importance of making a diagnosis and a complete physical examination about one month before the onset of labor. This not only will give a great deal of information which may be utilized during the labor, but it affords ample time in which premature labor can be induced if there is any abnormality.

Second.—Infrequent examinations during labor. If the delivery of women could be regarded as a surgical operation, requiring as full and complete antiseptic details as other surgical procedures, we could confidently expect non-febrile convalescence. The fact that sterilisation of the external genitals, the thighs, and the lower portion of the abdomen is sufficient, deserves mention. An ante-par-

tum douche is not only unnecessary, but is actually harmful, as has been shown by LEOPOLD and others. The use of gloves has not been satisfactory.

Third.—The use of anesthetics should be more general in private practice. Ether possesses many advantages over chloroform, and should be used, as a rule, when the pains are of moderate intensity. We have not had enough experience with the new method of spinal anesthesia to justify its use in more than an experimental way; and if added experience should show freedom from complications, we shall have at our command a method that is nearly ideal.

Fourth.—In the hands of the general practitioner a low forceps operation should be performed with greater frequency. It is easy of execution, is devoid of danger, saves unnecessary suffering on the part of the patient, and often actually enables us to preserve the perineal floor intact. On the other hand, however, median operations within the cervical canal and high operations should be done only for some special indication.

Fifth.—Non-febrile convalescence and freedom from local discomfort in cases in which the parturient canal is intact; it is of the greatest importance in the management of normal cases to acquire skill in so guiding the passage of the head and shoulders over the perineum that the risk of even a slight laceration may be reduced to a minimum. In addition to the danger of a mild puerperal fever, lacerations have a tendency to interfere with the involution of the vagina and uterus, and they predispose to many conditions requiring treatment by a gynecologist.

Too many obstetricians are careless in this respect, relying upon the usual good results of an immediate repair.

ON THE METHODS OF MAKING ANTITOXIC AND PREVENTIVE FLUIDS, WITH SPECIAL REFERENCE TO THOSE OF PLAGUE.

By C. BALFOUR STEWART, M.A., M.B., CANTAB.,
Thompson-Yates Laboratories, University College,
Liverpool.

It is unnecessary here to enter upon a discussion of the nature of immunity or of the action which takes place between toxin and antitoxin—a subject which we know very little about; but we may with advantage consider the means by which the human or animal body may be rendered immune to an infectious disease. It has long been known that immunity is in general obtained to the virulent disease by passing through a modified form.

IMMUNITY PRODUCED BY THE ATTENUATED VIRUS (LIVING MICROBES).

The first experiments in this direction with artificial cultures were made in 1880 by PASTEUR, who showed that immunity may be induced by inoculation with the attenuated virus—that is, with cultures of attenuated, but living, microbes. The outcome of these experiments was the protection of animals from anthrax and protective inoculation against rabies, although in this disease the specific micro-organism has not yet been found. In 1884

FERRAN first protected guinea-pigs against cholera by the same means; and later HAFKINE, in 1893-94, started protective inoculations against cholera in man on a large scale in India.

IMMUNITY PRODUCED BY MICROBES KILLED BY HEAT.

The method of inoculating with living microbes has its obvious disadvantages when carried out with the cause of a disease which may take a septicæmic form; and this fact led HAFKINE, when he came to experiment with plague, to try to immunise animals by inoculating them with microbes killed by heat. HAFKINE had observed with respect to cholera, and others before with respect to several other diseases, that it was possible to confer immunity by inoculating animals with the dead bodies of the microbes of certain diseases. An animal inoculated with either the attenuated living or with the dead microbe undergoes a reaction lasting several days.

The tissue cells of the animals, stimulated by the specific substance contained in the body of the microbe, are induced to elaborate an antitoxin or immunising substance; and the animal acquires an active immunity. An animal that has been at the trouble of manufacturing its own antitoxin has a more lasting and efficient protection than one that has been injected with an antitoxic serum obtained second hand, as it were, from an immunised animal. The antitoxic serum confers immunity almost directly, but its effects are fleeting—a fact which one would expect, considering the serum is a foreign body and is soon got rid of.

THE ACTIVE BODIES IN HAFKINE'S PROPHYLACTIC FLUID.

With respect to plague prophylactics, it is the intracellular poisons of the dead microbes that are mostly concerned in conferring protection, but HAFKINE injects the broth in which they have grown as well. He was led to adopt this measure from previous observation on cholera. The object is to counteract an attack of plague in an inoculated person—supposing he became infected—by previously accustoming the tissues to the poison given out by the microbe in the cultivation medium.

This theory assumes that the intracellular poisons induce a bactericidal power in the tissues, and that the extracellular poisons induce antitoxic properties which would come into play, supposing the bactericidal power were insufficient to prevent infection, that is to say, if the person did contract plague.

I showed by experiments on rabbits that the broth in which the microbes had grown apart from the bodies of the microbes was of use as a means of causing protection.

I have touched upon these points, because it has often been asked why the broth is used at all, and not the dead microbes alone, which would make the technique of manufacture simpler.

Since a dead culture only is used, the prophylactic is in no sense a serum. The false use of the word serum for what is really a vaccine is to be deprecated, for it gives a wrong notion of what the fluid really is. The word serum is constantly used in describing the prophylactic, even in Government reports. The very misleading,

not to say alarming, statement that inoculation with the prophylactic causes a mild attack of plague is not what one would expect from a scientific physician. A small definite quantity of plague poison is injected which is easily dealt with by the body and it cannot increase. There is the same distinction as would be between a case of mild septic intoxication and a case of septicæmia.

PREPARATION OF HAFKINE'S PROPHYLACTIC FLUID OR VACCINE.

The vaccine is a sterilised culture of the plague microbe in broth. The microbe should be obtained fresh from a case of plague, or from a culture in which the virulence has been kept up.

In India, where the religious prejudices of Hindu and Mohammedan have to be allowed for, the broth is made with goat's flesh in a way that is unnecessary to describe here. Ordinary broth as usually made in the laboratory is really better.

In order to ensure sufficient aëration of the microbe, which it would not obtain at the bottom of a flask of broth, HAFKINE first placed a few drops of oil or butter on the surface of the broth. The microbes attach themselves to the butter, and grow down into the broth in long threads like stalactites, forming a very characteristic and beautiful appearance. If the flask is moved, the "stalactites" break and fall to the bottom, to be succeeded by a fresh crop in a few days.

The stalactite formation not only serves its primary purpose, but is also a very important test in the bacteriological diagnosis of plague. The oil on the surface acts as a convenient substance for the microbes to attach themselves to. The microbe has a great affinity for any substance it can grow on; it prefers to grow up the side of a flask by continuity than to grow in the depths of the broth. Having attached themselves to the under surface of the particles of butter, they grow down into the broth. The microbe does not require a large supply of oxygen. I have grown it anaerobically and found it to be quite as virulent as a corresponding culture grown aerobically.

The flasks of broth are incubated at 70° to 80°F. At this temperature the microbe will have finished growing in about four or six weeks. This may be known by the fact that no fresh "stalactite" growth is obtained after shaking the flask and allowing it to remain stationary for a few days.

After the culture has done growing, its purity from contamination is tested by taking a small quantity out of the flask and inoculating an agar tube. If the agar is dry, and the culture spread evenly over the surface, the growth after one to two days' inoculation is seen as a thin, translucent, colourless film with a ground-glass appearance, when the underneath surface is viewed through the substance of the agar. Any stray colonies of a foreign microbe are easily seen. The broth culture which has been tested and found pure is then sterilised by heating it to 65°C. for one hour, and a small quantity (0.5 per cent.) of carbolic acid is added. The fluid is then drawn off into small bottles by means of a siphon.

ANTITOXIC SERUMS.

The antitoxic serum of YERSIN is used as a curative agent for plague. It also acts as a prophylactic agent, but the immunity conferred is very short—only about fifteen days. The principle of this serum is the same as that of antidiphtherial serum and others of like nature. An animal—preferably a horse—is immunised by inoculation at intervals with dead or living cultures of the specific microbe; after the first or second inoculation the quantities are increased and the intervals between shortened. The animal which takes the place of the human being who has been inoculated with a vaccine acquires an active immunity; and if the serum of such an immunised horse be inoculated in considerable quantities into a human being suffering from the specific disease, the disease is ameliorated or cured.

BACTERICIDAL AND ANTITOXIC ACTION OF SERUMS.

A serum may set in either of two ways: it may be bactericidal—that is to say, it can prevent the growth of the microbe in the body; or it may be antitoxic, in which case it exerts no bactericidal action, but neutralises the poisonous products given out by the microbe in growing, or it may be both bactericidal and antitoxic. The serum having bactericidal properties alone will suffice to prevent a disease if inoculated before infection; but if the serum be used as a curative agent, it must have antitoxic properties to counteract the poison already formed by the microbe, as well as bactericidal properties to arrest the growth.

With respect to anti-plague serum, ROUX asserts that the serums, however they are made, are always antitoxic, but the antitoxic property is more marked in some serums than in others; those made by injecting living cultures are more antitoxic than those made by injecting dead cultures. This fact, according to METCHNIKOFF, explains the difference in results obtained with YERSIN's serum.

PREPARATION OF YERSIN'S SERUM.

Having shown the possibility of preparing a curative serum in smaller animals, YERSIN, CALMETTE, and BORREL started to immunise a horse in 1895 at the Institute Pasteur. Living cultures of the plague bacillus obtained from Hong-Kong were used. Since injection of these cultures under the skin was found to cause long-standing induration, the method of intravenous injection was adopted, as much as a whole culture on an agar tube being used. The feverish reaction lasted for a week. After waiting twenty days, a second inoculation was made; the reaction in this case was intense, but of shorter duration. From this time larger quantities were injected at shorter intervals. The serum was found to be preventive and curative for laboratory animals after six weeks' treatment. It was from this horse after a year's treatment that the best results were obtained in Canton and Amoy in the summer of 1896.

YERSIN afterwards started making serum in his laboratory at Nha-Trang, using living cultures. ROUX started a stable of twenty-five horses at Garches near Paris, but he considered it inadvisable to use living cultures for so many horses, which could not be kept under observation in the laboratory. He therefore used cultures killed by

heat, and toxins formed in the cultivation media. The serums made both at Garches and at Nha-Trang were used by YERSIN in Bombay and Cutch Mandvi in 1897. The results were distinctly inferior to those obtained the year before at Canton. The results with the serum made at Garches with killed cultures gave the least good results.

On account of the inferior results of the Garches serum, and considering the progressive encroachment of plague, the Pasteur Institute decided to prepare several horses vaccinated first with cultures killed by heat and afterwards with living cultures, as was done in the first instance. This serum was used at Oporto in 1899, and gave somewhat better results.

VACCINE AND SERUM OF LUSTIG.

LUSTIG's method of preparing vaccine is based on the observation that a nucleo-proteid which he succeeded in separating from the bodies of plague microbes is a substance which induces immunising properties when injected; neither the metabolic products of growth nor toxins are used. The plague microbe is cultivated on agar plates and the growth is scraped off and dissolved in 1 per cent. sterilised solution of caustic potash. This solution is then rendered slightly acid with hydrochloric or acetic acid, and the resulting precipitate collected on filter paper; after washing it is dried *in vacuo*. This substance, which gives the chemical tests of a nucleo-proteid, is easily soluble in a weak solution of carbonate of soda.

LUSTIG proposes to use this solution as a prophylactic. He also immunises horses with it by repeated inoculations during a period of three or four months. The serum has been prepared in Bombay and tried at the Arthur Road Hospital.

So far, there has been no report of the use of the nucleo-proteid used as a prophylactic if it has been tried. The results of the curative serum were not at first very satisfactory, but lately better results seem to have been obtained. Dr. POLVERINI, in a report to the Bombay Municipal Committee, states that in 475 cases treated a recovery percentage of 39 was obtained. From the comparatively small number of trials of serum inoculation hitherto reported, neither serum seems to come up to what might be expected from a specific treatment. LUSTIG's serum does not appear to be so efficacious as that of YERSIN. This is possibly accounted for in a way similar to METCHNIKOFF's explanation of the difference in YERSIN's serums referred to above. A horse treated with a nucleo-proteid extracted from the dead microbes would be immunised with even less efficiency than one treated with the killed microbes together with their metabolic products, and a horse immunised in this way was shown to give a less powerful serum than one immunised with the living microbes. Compared in this way with HAFKINE's prophylactic, the latter is the greater success as a scientific preparation.

SURGICAL APPLIED ANATOMY OF THE RECTUM.

By THOS. CHAS. MARTIN, M.D.,

Lecturer on Diseases of the Rectum in the Cleveland College of Physicians and Surgeons, Member of the American Medical Association, etc., Cleveland, O.

ONE hundred cases of stricture of the rectum* reported by the ALLINGHAM'S are designated as situated at such a number of "inches from the anus" or such a number of

"inches up." For example: "Case number thirty-four, age thirty-seven years, female, constitutional syphilis, stricture one-half inch from the anus; case number thirty-six, age thirteen years, female, no constitutional disease, stricture about two inches up; case number forty-one, age twenty-seven years, female, no constitutional disease, stricture annular, three inches up; case number fifty, age thirty years, female, constitutional syphilis, stricture high up; case number sixty, age forty-seven years, no constitutional disease, stricture only to be felt."

Mensural methods of designating the situation of strictures in the rectum are of no surgical value. In the same subject the length of the fixed rectum is variable with a state of activity or passivity, and in a state of activity there are variations in its length of at least one inch (2.54 centimeters) between a contracted uplifted pelvic floor, and that of a depressed floor with anal eversion, both of which conditions may rapidly follow one upon the other, while the examiner's finger is engaged in diagnosis. Again, variations in depth of the fixed rectum are quite noticeably regulated by the size of the finger introduced. The thumb may find a fixed rectum of two inches (5.08 centimeters) in depth, while the little finger discovers it but a little more than an inch (2.54 centimeters).

The pelvic floor in the infant is about one-half inch (1.27 centimeters) in depth. The depth of the pelvic floor in the adult from the lower border of the relaxed external sphincter ani muscle to the levator ani muscle is extremely variable. In the aged male, because of senile enlargement of the prostate, the fixed rectum may be three inches (7.62 centimeters) in depth. In the aged female, because of senile atrophy of the generative organs and contiguous structures, the pelvic floor may be even less than an inch (2.54 centimeters) in depth. In the adipose and in the emaciated subjects, because of the character of the tissues occupying the ischio-rectal fossa, there are great variations in the depth of the pelvic floor; hence it is obvious that the palpable landmarks of the fixed rectum are situated at variable positions in the different sexes, and that the length of the fixed rectum is changed in the same person at different periods of life and in differing conditions of flesh.

The rectal valve constitutes the chief topographic feature of the moveable abdominal rectum. Its histologic character qualifies it the typical anatomic valve. The attached border of each valve spans a little more than half the circumference of the rectum, and its free border projects half across the diameter of the inflated rectum. Thus, what has been heretofore considered as a cavernous ampulla is seen to be divided into several chambers. There are as many chambers in the rectum as there are rectal valves. The number of rectal valves is variable. Some subjects have but two; others have four, but ninety per cent. of persons possess three. The uppermost valve is invariably situated at the juncture of the rectum and the sigmoid flexure, which valve is invariably situated on the left, the next lower is on the right wall, and the lowermost is on the left. The positions of the lower two valves are sometimes anterior and posterior. It must be readily seen that the new methods of rectal inflation for rectal inspection, which have determined our newer ideas of the topography of this part, justifies that the lowermost chamber be considered the first rectal chamber; the cavernous area beyond the first valve and below the second should be called the second chamber; and the upper chamber the third, and perhaps fourth, according to the number of valves. The ancient arbitrary division of the rectum by the anatomists into upper first, middle second and lower third parts should be abandoned. As the arrangement of the fibres of the muscular coats of the abdominal rectum and the attachments of the abdominal rectum provide for extension and contraction of the gut on its axis, as well as expansion of the diameter of the organ, it is obvious that there must be a great variation in the distance of any valve from the levator ani with the variable normal states of the organ. The normal

*Allingham, *Diseases of the Rectum*, page 261.

range of movement upward and downward of a given valve is from two to three inches (5.08 to 7.62 centimeters).

1. In treating lesions on a level with the sphincter muscles, the operator should never divide these structures through the anterior quadrant. In the male the external sphincter terminates in the tendinous raphe in common with the transversus perinei. Contraction of the transversus perinei will separate the divided fibres of the external sphincter, and defeat the desired subsequent union of this muscle. If an incision be carried forward, or forward and laterally into the transversus perinei, the perineal fascia, which doubles over this muscle, will be opened, and the perineum and peri-urethral structures will be made accessible to extension of suppuration, or other disease of the anus and ischio-rectal tissues. In the female an incision carried forward through the anterior quadrant would be unsurgical, because the peculiar arrangement of the fibres of the external sphincter ani and sphincter vagina, and their relation with the transversus perinei would perhaps conspire to produce vulvo-anal or recto-vaginal fistula.

2. A stricture located at the upper end of the fixed rectum and situated in the layer of the anal fascia, in the pelvic fascia, or in the fibres of the levator ani muscle, should not be cut in the anterior quadrant, nor in the posterior quadrant, but in one or the other or both lateral quadrants. An incision through the anterior quadrant on the plane of the levator ani muscle would divide none of its fibres, because there are none there, and would endanger the urinary organs, and the vagina in the male and female respectively. An incision made into the posterior quadrant on this level would fail to increase the diameter of the rectum, for the reason that contraction of the fibres of the levator ani would hold in coaptation the lips of the wound in such a manner as to early re-establish the stricture. A skilfully made incision in the lateral quadrants in this region will not endanger the peritoneum. A possible hemorrhage will be readily controlled; and because of the direction of the fibres of the muscle, a short lateral incision will effectually increase the diameter of the part.

3. The rectal valve must be reckoned with in studying the structures of the moveable abdominal rectum. Linear posterior proctotomy, because of the relation of the peritoneum to the posterior wall of the lower part of the moveable rectum, is made eminently safe, and will be efficacious in some instances. Semilunar (annular) strictures located at any other point of the circumference of the moveable rectum, and which are built on the foundations supplied by the rectal valves, may be safely cut through to the depth of a quarter of an inch (0.63 centimeter), provided the surgeon be equipped with the proper instruments, and provided the rectum be maintained in a state of atmospheric inflation at the time of the operation.

The writer's studies of the topography of the human rectum employed more than fifty autopsies on subjects of all ages, and physical examinations of several hundred living persons, and the facts which are set forth above justify the inference, he believes, that none but the topographic designation of the precise situation of the rectal lesion is of reliable surgical significance.

A MIRROR OF PRACTICE.

A CASE OF SUDDEN DEATH IN LABOR.*

By W. P. C. HAZEN, M.D.,
Washington, D. C.

SOME time prior to August 1898, I was engaged to attend Mrs. P. in her confinement, which it was expected would occur about the middle of August.

Mrs. P. was 28 years of age, and the mother of one child aged six years, at whose birth I had assisted. The patient was a strong, healthy woman, seldom having need of the services of a physician, and led a life of ease and comfort.

Shortly after having been engaged, I called upon the patient and found her in a perfectly normal condition, with the exception of some slight oedema of the ankles and legs. From this I was led to make an examination of the urine for albumin, but after three examinations at different intervals, I found only a slight trace of albumin present each time—not enough to indicate any kidney complication. Shortly after 8 P.M., on August 7th, I was summoned to attend the patient, who had been in labor since 8 o'clock P.M. Upon arrival at the house I found the patient in a very cheerful and hopeful frame of mind, and discovered upon examination that the os was slightly dilated, and that at irregular intervals she experienced the usual short, cutting pains. I made out a normal head presentation. I remained at the house about one hour, in order to observe the rate of progress, and found that everything was progressing in a perfectly normal manner. I informed the husband of the favorable conditions, and that I would return in two hours, unless called sooner. About 11:30 P.M. the husband came for me, stating that his wife was having very severe pains. Upon my arrival at the house, I found the patient again in the same calm and apparently normal condition, and upon examination found the os well dilated, and that the bag of waters had ruptured and labor appeared to be progressing normally.

After being in the room a few minutes, I noticed that the patient was annoyed somewhat by a slight, dry cough, which appeared to be of nervous origin. This cough gradually increased in frequency and severity during the remainder of the labor.

About 1 o'clock A.M. I found that the head was resting upon the perineum, and advised her to agree to the application of the forceps, in order to relieve her of any further suffering. She consulted her husband, who readily agreed, and then she concluded she would prefer to "let nature take her course." A few minutes later she was seized with a severe spasm of coughing. She sat up in bed and expectorated a small amount of frothy mucous, tinged with blood; and turning to me she said in a calm, mild manner, "Doctor, I believe that I am dying;" and before I could reach her side to support her, and in less time than it takes me to tell it, she fell back on her pillow, dead. The child was delivered dead.

The family were opposed to *post-mortem*, and I am free to confess that to the present moment I am ignorant of the exact cause of this fatal termination of what was in every other respect a typical normal labor.

*Read at a meeting of the Medical and Surgical Society of the District of Columbia, December 1, 1898.

I have since elicited the fact from relatives that the patient, when a young girl, suffered from an attack of inflammatory rheumatism. But, during the whole period of my acquaintance with her—a period of at least seven years—she had been a perfectly healthy woman in every respect.

In looking over the literature on the subject of "sudden death in labor," and the cause thereof, I could not help being impressed with the poverty of medical literature upon this subject. True it is that there have been many interesting papers upon the subject, and by eminent and able authors, but they consist almost entirely of detailed and graphic accounts of particular cases, and, with but few exceptions, no very satisfactory explanations as to the causes of such a tragic ending of what should be one of the happiest events in domestic life. Professor Lusk himself acknowledges: "But when the conscientious physician seeks for light concerning the cause of the tragedy in which he has played the part of a powerless spectator, he will find but scanty guidance in the few brief lines devoted to the subject in the systematic treatises upon midwifery."

In an attempt at a classification of causes of sudden death during labor, HIRST, in his work on Obstetrics, gives the following eight causes:—

- 1st. Mental emotion.
- 2nd. Severe suffering and nerve exhaustion.
- 3rd. Disease of the heart.
- 4th. Rupture of the aorta or other internal organs.
- 5th. One of the accidents or complications of labor.
- 6th. Pulmonary thrombosis or embolism.
- 7th. Entrance of air into the uterine veins.
- 7th. Disease of the respiratory organs.

DISCUSSION.

Dr. BOVEN has never seen but one case of such an accident, but had seen references to it. He cannot account for it, except by supposing there was some heart trouble from rheumatism or muscular or nerve strain. Is astonished at the small number of cases reported, since there is great muscular strain and nervous excitement at the time of labor. Some authors insist upon there being a compensatory hypertrophy of the heart during pregnancy, so that it may be prepared for the extra tax to be placed upon it at labor. Thought œdema of the lungs may have been present, but not noticed, as suggested to me by Dr. SOTHORON. This, from fatigued circulation, may occur rapidly, and even escape notice, because of the environments. This was probably the cause of death in Dr. HAZEN's case.

Dr. SOTHORON asked whether there was cough and how long it had lasted; also if internal hæmorrhage had occurred.

Dr. HAZEN said there was a slight cough, but no internal hæmorrhage.

Dr. BOVEN said there were other causes of death, and suggested rupture of the uterus, with escape of the fetus into the abdominal cavity. The shock accompanying such an accident had caused instant death in a patient in his hospital service.

Dr. STONE said it was hard to give the cause of death in this case, in view of the fact that a *post-mortem* examination had not been allowed. The cough had been present, there may have been œdema of the lungs, pleuritic effusion or cardiac disease. Heart disease may have been present, but not diagnosed; sudden death is often due to heart disease which may have existed for years.

Dr. SOTHORON questioned whether œdema of the lungs could cause so sudden a death as had occurred in this case.

Dr. STONE related a case of sudden death in an apparently healthy man, who had been kicked by a horse in the region of the heart—death followed from œdema of the lungs.

Dr. BORDEN, in speaking of the causes of sudden death related a case of an enlisted man, who died suddenly on leaving the dining table; *post-mortem* failed to show lesions. There had been no shock, no history of alcoholism, nor had he ever been sick. In another case a hospital steward, who had been exposed to cold, although his condition was good, died fifteen minutes after observation. In this case the *post-mortem* showed œdema of the lungs; other organs healthy.

Dr. VINCENT related cases which he had seen in hospital; one of simple bronchial inflammation, another of pneumonia.

Dr. HAZEN, in closing, said the woman was apparently healthy, weighed about 130 pounds, was 5 feet 6 inches in height. Her first labor had been terminated with forceps; was not seen in the interval. The heart had not been examined, since there had been no occasion to do so; urine was normal in quantity and composition. Her cough, towards the last, was aggravated; there was no evidence of internal hæmorrhage. He had certified the case as one of œdema of the lungs. Had seen one death from rupture of the uterus, but it occurred slower than in this case. No medicine of any kind had been given.

SARCOMA TESTIS.

By C. PAPAROW,
Medical Student.

WHEN I was attending the Vizagapatam civil hospital during the summer recess with the permission of District Surgeon Lieutenant-Colonel A. H. LEAPINGWELL, the midwife attached to the Baptist Medical Mission of Chicacole (Ganjam District) came to the hospital under the orders of the lady doctor of the mission with a pariah woman and her son, APPALASAMI, aged two years and three months. The mother looked very healthy, and did not show any signs of suffering. The boy looked flabby rather than healthy to all appearances, but had been suffering from one afflicting complaint. It was really an afflicting one, for it gave him an excruciating pain on movement. The pain was located in his right scrotum. The first class Hospital Assistant attached to the hospital examined the boy, but was not certain of his diagnosis, and so he reserved it to himself. The mother and the child were admitted into the hospital as in-patients on the 27th April 1900. On the next day the District Surgeon examined the boy, but he, too, did

not come to any settled diagnosis, for the case looked to all appearances to be one of hæmatocele, but the scrotum was glistening and blackish red. It was very hard to touch, and turned more towards the middle of the right thigh than towards the left. It was found on examination neither to be a case of hernia, nor a case of hydrocele. The doctor was bent on exploring it. He did explore it at last, but failed to find out any signs of hæmatocele. Then he thought that it might be either a case of "sarcoma testis" or "elephantiasis scrotum," and on close examination the former proved to be right.

The child, APPALASAMI by name, is the only son of a pariah cultivator in an adjoining village near Chicacole. The parents of the boy are very healthy and vigorous, but the boy himself, as has already been remarked, looked flabby and anæmic, and bore signs of agony every now and then, owing to the severe pain in his scrotum. The pain was aggravated on movement, so he had to lie down flat either on his mother's lap or on the bare ground. On enquiry, his mother told me the following history of her son. Some ten months ago, it seems he had had a fall from the pial of her cottage against a stone in the street; thereby he received a blow on his right testicle, which accordingly showed some of the primary signs of inflammation which gradually subsided within a fortnight. Practically the boy did not suffer at all for a time after the incident, but pain in the right testicle did not disappear entirely, so he became subject to that pain, which gradually increased. She tried all her best with the few medicinal resources with which the Hindu mothers treat all minor complaints. They use some indigenous drugs which are represented by some native doctors to be very efficacious, but are really not so. Unhappily, but not unnaturally, these drugs had no effect on the boy's malady and agony, which were only aggravated by her injudicious modes of self-treatment. She had even gone to the length of branding the boy on both sides of the inguinal and femoral regions (more on the right). Not being satisfied with this, she paid homage to many a devatas shrine, giving all sorts of animal sacrifices which are believed by the low caste Hindus to relieve them of their affliction and anxiety and restore them to health. She tried all these, and many more crude methods, and tried them only in vain. At last, wisely or unwisely, she went to Chicacole to try her chance with the lady doctor of the Baptist Mission. The lady thought it fit to send this case for treatment to our talented surgeon. Accordingly the mother and the child came to Vizagapatam accompanied by the midwife of the mission. They were admitted into the hospital, and on the second day Dr. A. H. LEAPINGWELL explored the case, and found it to be a case of "sarcoma testis." The scrotum was very opaque and darkish red, and its size and weight were too troublesome for the boy to carry. The boy was put under chloroform and was operated on. The doctor thought it best to remove the whole of the right testicle with its sarcomatous growth; so he removed it entire with the cord and its appendages. The left testicle was very healthy, and ran high up to the external ring, and stood there safely without being caught by the sarcoma-

tous growth of its fellow; so he did not meddle with it, and sutured the scrotum, carefully inserting a small drainage tube into it. He dressed it with the necessary antiseptic precautions and with the usual "B. and I." dressings. Successful operations with antiseptic precautions, which owe their origin and growth to the venerable Lord LISTER, mark an epoch in the history of operative surgery in the end of the nineteenth century. The results of the above treatment are as follow: On the sixth day after operation the drainage tube was removed. Within a fortnight the boy looked cheerful and gay, so the boy and his mother were discharged from the hospital on the 13th May 1900.

The scrotum was so big and pendulous that it extended even to the distal end of the middle third of the right thigh. The integument and all the coverings around the right testicle were very hard to touch and pale on section; but between the two layers of the tunica vaginalis we observed a sort of brownish growth showing faint signs of ulceration. After the removal of the right testicle, I separated it from its sarcomatous growth and preserved it in spirit, making it into two. It resembled to some extent on section an enchondroma, but I think it might be a chondrifying sarcoma. Anyhow, it is surprising to see a case like this making its way into a sarcomatous growth from a mere hit against a stone. The boy left the hospital with one testicle, but he was saved by the able doctor from the peril of dragging his life to a miserable end. The boy looked very curious to me before operation, as he had a scrotum of the size of an average cocoanut. He also astonished the talented and popular surgeon, Dr. A. H. LEAPINGWELL, who, by the way, remarked that he had not come across such a case during his vast and varied experience of more than a quarter of a century. This remark of my revered doctor, under whom I had the pleasure of serving during my pre-collegiate course, prompted me to preserve it for an opportunity like this.

CASE OF URINARY CALCULI LODGED IN THE VAGINA; AND A CASE OF SUPRAPUBIC LITHOTOMY FOR A LARGE STONE.

REPORTED BY H. F. LECHMERE TAYLOR, M.B., C.M., EDIN.,
Surgeon to the Mission Hospital, Jalalpur, Jattan, Punjab.

THE patient, a Hindu girl, apparently aged about 15 years, was brought to the hospital on February 2nd, 1890, in a semi-conscious condition and an extreme stage of emaciation. The parents, who were very dull mentally, stated that a stone had been removed four years before, but could give no information as to the operation. The patient was suffering from diarrhoea and incontinence of urine, and there was a foul greenish mucous discharge from her vagina. On passing the sound, a stone was felt within

half an inch of the meatus; an attempt to grasp it with dressing forceps was unsuccessful. On passing the finger into the vagina, a stone the size of a walnut was encountered. The vulva was slightly incised in the middle line posteriorly, and the stone removed with lithotomy forceps. Behind it were found four others packed into the fornices of the vagina, which were widely distended, the whole canal being tubular, with the os palpable as a dimple in the roof. The patient appeared to be moribund, but gradually rallied after a hypodermic injection containing 5 minims of the liquor strychninae. Owing to her general state, no further attempt was made to explore the local condition. During the next eighteen hours two enemata were given containing an egg beaten up in milk, with boryl and some alcohol. Next morning she began to take food by the mouth. The stones were rounded in shape, faceted, evidently largely composed of lime salts, and weighed altogether 2 ozs. 100 grs. A superficial sloughy ulceration set in, which was treated by frequent antiseptic syringing and dusting with iodoform and boric acid. On the sixth morning, on removing a slough, another stone was revealed. Chloroform was given, the stone removed, and a thorough examination made. The septum between the vagina and urethra was absent except at the meatus, where a ring about $\frac{1}{4}$ inch broad remained. Between the neck of the bladder and the os cervicis was found an irregular circular opening with thickened edges—a vesico-vaginal fistula, which admitted the index finger. The bladder was empty. The sixth stone weighed 1 ounce 45 grs. The patient made no headway, and on February 10th a dome-shaped slough, about the size of half a goose's egg, was removed from the vagina. She died early on the morning of February 12th.

In the second patient, a man aged 20, a large stone could be felt *per rectum*. The operation was uneventful, but the wound had to be repeatedly enlarged, the muscles also requiring division transversely. Considerable force was used in the removal of the stone, which weighed 8 ozs. 2 drs. and some grains. No attempt was made to sew up the bladder. Considerable sloughing took place, and once secondary hemorrhage threatened to be serious. The wound opened into a cavity through which the interior of the bladder could be seen. A red rubber catheter was kept in (its end having been cut off from above and several perforations cut in its sides) to ensure good drainage. The patient gradually sank, and died on the thirtieth day after the operation.

Nature Treatment of Tuberculosis.

R. O. BEARD says that the study of the warfare waged between the human tissue cells and the bacillus tuberculosis teaches us the lesson that the task of the public sanitarian and the physician is largely one of prevention, and that cure—a secondary and short-lived possibility in the course of the disease—is best accomplished by extending the principles and methods of prevention to the assistance of the tissue cells. Only now are we learning that but two prime factors are essential to make localities favorable to the tuberculous patient—purity and dryness of atmosphere, in whatever latitude, at whatever altitude, on plain or mountain, in forest or on ranch. Consumptives should be isolated. Tuberculosis should be quarantined in our towns as effectively as yellow jack. As to the creation of the Minnesota park, the nature treatment of tuberculosis in this available region will repay the nation in men more than it can gain in timber by its destruction or in navigation by its saving. As nearly complete physiological rest as possible should be attained by the consumptive. Forced feeding is also an important element in treatment. The gradual increase of food is well endured even in advanced cases. The combination of all these measures should brighten the hope of control of this most destructive of the diseases of civilization.—*Med. News.*

Indian Medical Record.

16th January 1901.

BOGUS AMERICAN M. DS.

GANGADIN VERSUS THE "INDIAN MEDICAL RECORD."

OUR readers will be interested in scanning through another phase of the recent defamation case at Lahore. Whether by wilful design or not, failing to put in an appearance at the trial which he instituted in Lahore against the *Indian Medical Record*, GANGADIN now has the impudence to endeavor to pose as a martyr to judicial hard-heartedness. It looks very much like another wily ruse to sustain a deliberate hoax, for GANGADIN now knows, if he was so stupid and dull-headed as not to know before, that his so-called "diploma" are out-and-out frauds. To give point to our remarks, we publish GANGADIN's letter to the leading English paper of the Punjab, and our reply thereto:—

"AMERICAN MEDICAL DEGREES.

TO THE EDITOR, "CIVIL AND MILITARY GAZETTE."

Sir,—I have read your article entitled "American Medical Degrees—Action for Defamation in Lahore," published in your issue of 5th December, and I think I must say something in order to efface the impression which your article might have produced upon the mind of your readers. First of all I must say that I am astonished to see at your taking such a hasty step in giving publication about a case which is not yet finished. I now inform you and the readers of your paper that I was really ill and so could not attend the Court on 3rd December, hoping that the City Magistrate would be also kind enough to me by granting an adjournment of a few days, as he had done in the case of the accused (Dr. WALLACE) by granting him four months' adjournment when his Counsel had asked for it; secondly, I was under the impression that as he had been kind enough on the accused by allowing him always to appear by pleader, he would at least excuse my one day's absence from the Court when I was ill and when my Counsel was present; but I simply regret that he had not been so kind in my case. However, I have no right to compel Mr. STOW (City Magistrate) to show me the same kindness what he showed to Dr. WALLACE the accused.

Now as regards the order of the City Magistrate acquitting the accused under Section 247, C. P. C., owing to my absence from the Court, I am informed by my legal adviser that it is utterly unjust and illegal, and so I am going to get his order of acquittal set aside by moving some higher authority. Section 247, C. P. C., applies to summons cases, and not to warrant cases. The charge brought against Dr. WALLACE was under Sections 501 and 502 of the I. P. C., which are warrant cases, and are classed so under Schedule VII of C. P. C. The City Magistrate could have discharged the accused under Section 259 of C. P. C., and not acquitted him, as he has done. Any

one suspecting my abovesaid statement can look into the Code of Criminal Procedure, and he will at once be satisfied. The next thing to which I wish to draw the attention of the public is that all the Diplomas which I hold are genuine, got by regular study and passing examination, from respectable institutions. Any one wishing to look into my diplomas is welcome to call at mine, and see for himself.

I am sure that the City Magistrate himself is satisfied that my Diplomas are genuine, although he has acquitted the accused on account of my absence from the Court on 3rd December, as he, when he took my statement on the day when my complaint was admitted, asked me that why did I not accept an apology from Dr. WALLACE, and my answer to this he has recorded in the proceedings. This was probably the last question that he asked me after thoroughly examining my Diplomas, Governmental papers of America, and such other important papers showing conclusively that I was in America and had studied there.

Thirdly, I wish to inform you and the readers of your paper that although it is considered an unprofessional conduct for medical men in England to advertise, it is not considered so in India. There are dozens of old qualified medical men who advertise, and in order to substantiate this, I give a few examples. [Here follow three names and dates and journals in which advertisements are said to have appeared.] Among the Assistant Surgeons there are a host who advertise. [Here follows list of names, dates and journals.]

In fact it is custom among the junior practitioners, at least, to advertise, and is not considered in any way bad either by the Indian public or by the majority of Indian medical practitioners.

Medico of Hyderabad and Lahore Surgeon, who defamed me in the *Indian Medical Record* should have boldly given out their names, it is a pity that they did not; and they are still keeping me and the public in dark.

GUNGADIN, B.Sc., M.D.,

Late of Lahore.

KARMON-KI-DEORI;

Amritsar, December 12th, 1900.

(Published in *Civil and Military Gazette* of 16th December 1900, and reproduced in the very identical scholarly English (?) in which it appeared.—Ed., *I.M.R.*)

"AMERICAN MEDICAL DEGREES.

GUNGADIN *versus* THE "INDIAN MEDICAL RECORD."

TO THE EDITOR, "CIVIL AND MILITARY GAZETTE."

Sir,—My lawyer in Lahore in the above case has sent me, through my lawyers in Calcutta, a copy of a letter addressed to the *Civil and Military Gazette*, which appeared in that journal recently, from a man named GUNGADIN, the plaintiff in the above case. As the case was dismissed, and the Editor of the *Indian Medical Record* was acquitted of the charge of defaming GUNGADIN, the latter, who did not appear in Court to undergo cross-examination, now appears in public, through your journal, to refute the statements of the *Indian Medical Record* regarding the lack of genuineness and the legality of his so-called degrees. Under the circumstances, I feel it my duty to the public to reply to GUNGADIN's letter.

He states :—(1) His diplomas are genuine; (2) that he was in America and studied there; (3) that his diplomas are "Government papers of America;" (4) that medical advertising in India is not unprofessional.

1. Are GUNGADIN's diplomas genuine? What are they?

In his sworn affidavit before the City Magistrate of Lahore he said he was M.D. of the Medical College of Indiana, B. Sc. (Bachelor of Science) of the Chicago College of Science, and Fellow of the Indiana Academy of Medicine. He swore that he studied Medicine in America, and that he was educated in the Calcutta Homeopathic Medical School.

I have written to the responsible authorities in Indiana and Chicago. Their replies were in the hands of my counsel, and this evidence would have been before the public had GUNGADIN continued to display the same zeal in the prosecution of his charge, as he did in the laying of it.

Having deprived the public of my evidence by his non-appearance in Court, he now seeks to support his claim to being considered a duly qualified medical man by making the statements in his letter to your journal which I have quoted.

Here is some of my evidence :—

(a) From the Secretary to the State Board of Health of Illinois, (Dr. J. A. EGAN):—"I have before me the Annual Announcement of the Medical College of Indiana, Indianapolis, for 1900-1901, in which there is published a list of the alumni of the institution up to and including the year 1900, but after careful search, I fail to find any graduate named GUNGADIN, or any name similar thereto. It is probable, therefore, that the diploma referred to is spurious. I would suggest that, if possible, you have this diploma examined, getting the correct name and date of issuance, and advise me, whereupon I can give you definite information. The Chicago College of Science, extinct 1889, was, during its brief existence of one year, a fraudulent institution. It had been repeatedly exposed by this Board."

(b) From the Secretary of the State Board of Health of Indiana, (Dr. J. N. HURRY):—"We are requested by Dr. J. EGAN, Secretary of the State Board of Health of Illinois, to give you information concerning the 'Indiana Academy of Medicine.' There is no such institution or association in Indiana. There may have been in the past, some quack or false combination under this name, but it does not now exist. All diplomas or certificates which may have been issued by the Indiana Academy of Medicine are without standing, and are unrecognised by the Indiana State Medical Societies."

(c) From the Secretary of the State Board of Health of Indiana (Dr. J. N. HURRY):—"The Medical College of Indiana is a reputable institution, and its diplomas are recognised in every State of the Union. In reply to our note to the Medical College of Indiana, we are told that no such name as GUNGADIN, or one like it, is upon their records. Neither is any one of such name, on the State records of Indiana, as a licensed practitioner."

(2) I have further evidence to prove that GUNGADIN underwent no orthodox course of medical study in any reputable college in America. I can prove by documentary evidence that he was admitted into a bogus institution in Calcutta, called the Homeopathic Medical School, without any passport of a preliminary English education, and that he attended a few of its "lectures."

(3) GUNGADIN endeavours to delude ignorant and unsuspecting readers of your journal into the belief that the "papers" he displays as "diplomas," are "Government papers of America." I have clearly proved that the authorities—the authorised agents of the American Government—declare the B. Sc. of the Chicago College of Science to be "fraudulent," and the Fellowship of the Indiana Academy of Medicine to be another "fraud," and it is further clearly proved that GUNGADIN is not recognised or known as a graduate in the degree of M. D. of the Medical College of Indiana.

I trust that your readers will admit that in repudiating GUNGADIN's claims to membership in the profession of Medicine I have simply done my duty to the public, for I have the constant assurance in my own mind that those who personally know me will readily and frankly acquit me of the faintest shade of malice against a man whom I do not know, except by name, and by his unenviable reputation of advertising his "professional" (?) virtues in the lay papers and by other means.

(4) I have heard it said that poachers do not look upon poaching as a crime, nor even as an offence; so, possibly upon this line of argument, there may be men in the medical profession who, being "advertisers," do not regard "medical advertising" as an ethical offence. However, GUNGADIN will find not only public opinion against him in this matter, but Indian law-courts also, for the ethical code of Medicine not only regards advertising as unprofessional, but its representative bodies are possessed of the penal power of depriving medical men, guilty of such misdemeanor, of their diplomas, and turning them out of a profession which they degrade and dishonour by such conduct.

Yours, etc.,

JAMES R. WALLACE,

Editor, "Indian Medical Record."

Calcutta, 23rd December 1900.

(Published in the *Civil and Military Gazette* of 1st January 1901.)

We feel sure our readers will be satisfied that GUNGADIN has no claim to being considered a member of the medical profession, and that the falsity and barefaced audacity of his pretensions have received a well-merited quietus.

HOSPITALS: SOME ASPECTS OF THEIR CONSTRUCTION AND EQUIPMENT.

THE *Journal of the American Medical Association* publishes a valuable and interesting article on the construction, organization and management of hospitals, by Dr. J. R. McDILL, M.D., Major and Brigade Surgeon, U. S. V. Commanding Hospital. We give the essentials. After a somewhat lengthy historical review of the progress and improvement in these institutions prior to the sixteenth century, the first important subject touched upon by the author was the development of the study of ventilation by CARDINAL DE POLIGNAC in 1703, and by DRAGUINAS in 1727. Positive science had been established only at the beginning of the eighteenth century, and the

practical adaptation of science and inventions then only just began, and curative medicines was hardly in advance of the times of HIPPOCRATES. STENENHAM had done much in the latter part of that century to influence advances in medical science and earlier, HOFFMANN, BEUCERS and ARBUTHNOT. The great movement in hospital-building took place in the eighteenth century, and several institutions were then established. The most useful hospitals were, and had been, general ones, built upon the pavilion plan, with ample acreage, with wise management, principally under medical officers' control, under whose roofs every medical man was a free, independent and responsible agent, enjoying equal rights with all, as far as consistent with wise general management. The mortality in these old pavilioned hospitals had been pretty generally in the ratio of the size of the hospital, and the consequent aggregation of patients, the crowding together in the wards, the deficiency of ventilation, defective sewerage arrangements and want of constant attention to the details of cleanliness. The broad general object for which hospitals were established might be stated to be the gratuitous medical and surgical treatment of the indigent sick. Many abuses had, however, crept in, and large numbers yearly received medical treatment gratuitously, who were quite able to pay for it. To obviate this, the establishment of paying institutions had been recommended. If this, however, could be accomplished, it should be done with fairness to all concerned, and with as little harm as possible, especially in the direction of promoting negligence, shiftlessness, laziness and vice—the pauperising of the people. The writer did not enter into the question of special hospitals, such as hospitals for military purposes, for consumption, for incurables, etc., as being too vast a subject. In referring to hospitals for infectious diseases, it was pointed out that the fulfilment of the duty of providing suitable accommodation therefor was a task apparently very little to the taste of sanitary authorities. As a consequence the provision for such hospital accommodation got shelved from time to time, until an epidemic occurred, when a frantic effort was made to put up a temporary hospital in a few days to cope with the urgency of the moment. A permanent "isolation" institution was wanted in every city and town, to provide the means of isolating at once the earliest cases of disease, and of thus preventing the epidemic, instead of leaving it to be battled with when it had got full away. For this purpose the author considered STROHMAYER's canvas barrack hospital, kept on hand by State or Municipal authorities, to be the most suitable. The most perfect permanent isolating ward, however, was in the Johns Hopkins Hospital. The writer then referred to the considerations in planning and making specifications for a scientific hospital. Thoroughly fireproof construction was not necessary: the semi-fireproof or slow burning construction was sufficient. As regards the site, the following points had to be considered: (1) Aspect and conformation of ground: high water level and prevention of an upward current of the soil air into the building. (2) Nature of soil: refuse of all kinds should be excluded and avoided. (3) Area in relation to number of beds. (4) Convenience of access for patients, physicians and students; and lastly, the cost. The foundations should have a

solid concrete base, with lines of drain tiles laid around them, preventing the moisture in the soil from being drawn up into the walls by capillary attraction. The walls of the building should keep out the air, and on the internal surface should be absolutely impervious, capable of being washed down and thoroughly cleansed without its impermeability being affected, and in such circumstances a larger supply of air would be necessary than would be the case with walls of ordinary construction. The floors of the wards, operating rooms, etc., should be a solid and fireproof surface of solid oak or teak, laid on a surface of cement or concrete and wax polished or paraffined. All angles between the floor and the wall should be rounded to a radius of not less than two inches, and no mouldings involving sunken recesses or grooves should be permitted, and all angles in which dirt can lodge should be abolished. The windows should consist of two sheets of thin glass with an air space between, perfectly airtight. Doors should be wide, 42 inches, without thresholds. The linen room should, above all things, be spacious, provided with abundant air, light and ventilation, and also artificial heat, and have washable walls. The floor space must be at least 100 square feet per bed, and the ceiling need not be more than 12 feet high, as the space above that height was of little value as ventilation space. In connection with the subject of ventilation, the question of keeping rooms warm arose. Warming consisted of the direct and indirect varieties, of which the indirect seemed preferable. Ventilation resolved itself into two systems: (1) Natural, *i.e.*, unaided by mechanical contrivances. (2) Artificial or forced ventilation. The natural system depended upon the ordinary means of windows, aided by smoke flues from grates &c. Artificial ventilation was arranged in two ways: (1) Either air was forced into the ward by steam fan power, or (2) vitiated air was drawn out by means of hot water coils in the exit shaft. In the writer's opinion the best ventilating and heating arrangement was JOHN HOKINS' system. This consisted of a double system of outlets—one in the floor and one in the ceiling—the object being that the floor outlets may be used in winter or cold weather for the purpose of economising heat, while in summer both sets might be fully opened. In the isolation wards perforated floors were employed for heating and ventilating, the air passing constantly upward, placing the patient, as it were, in the condition of being out of doors in a very gentle current of air. In reference to sewage disposal and house drainage, all soil and other pipes were so placed as to be readily accessible and freely exposed to view. Water-closets were to be disconnected from wards by intervening lobbies and be perfectly ventilated, and the mechanism for supplying water must be as simple in construction, as strong, and as nearly self-acting as possible. The whole of the contents of the flushing cistern should be capable of being discharged at one time. Basin and trap should be of the simplest form and entirely of white enamel, and the traps properly ventilated through the roof. In close proximity to the closets should be a separate space enclosed for the slopsink, with provision for keeping bedpans, brooms, &c., and here also should be a cupboard ventilated to the whole extent of its external or wall

side into the outer air, in which to keep faces, etc., required for examination by the medical staff. There was no necessity, however, as in the case of closets, of interposing a disconnecting lobby between a bath-room and a ward. Bath-tubs should be away from the walls and surrounded by moveable floor slates. The electric system of lighting was infinitely the purest and best, and the water-supply should always be well filtered. In connection with the operation house, the writer considered that there should be three separate rooms—one for a surgeon's dressing room, one for instruments and sterilisations, and one for preparation of patients—placed as far as possible from serial contact with wards or other parts of the hospital, of a size of 30 feet by 40 feet. Every detail in the operating room was to be devised with a special view to its aseptic necessities, everything of an absorbent nature being eliminated. A north window should furnish the principal light, and be formed of one sheet of plate glass 10 or 12 feet by 8 feet, fitted in a wrought-iron frame, flush with marble or glass and wall. Other windows should be constructed in a similar manner, but made to open for purposes of ventilation—every part should be impervious, readily cleaned and easily seen. The operating room should have two 100-candle power electric lights, with an arrangement allowing of any angle of reflection, and also two portable incandescent lamps with flexible connections. Operating table and floor should not be connected in any way with the general drainage system of the building, and a large constant supply of water sterilised and at a temperature of 130° should at all times be readily obtainable. The furniture should be "aseptic," made of white enamelled wrought-iron and glass. Of paramount necessity in all hospitals was a large general disinfecting apparatus of some kind, both for the purpose of destroying vermin in clothes, and for disinfecting bedding, etc., after cases of infectious diseases. The only trustworthy process was the application of steam under pressure at a boiling temperature or even greater. The germicidal property of steam depended upon its moisture and on the expulsion of air contained in the articles to be sterilised. An efficient apparatus should provide means for subjecting the articles to be disinfected to actual contact with an overhead streaming steam, which expels every particle of air from top to bottom, while the apparatus is getting heated; and then the removal of vapour by a new filling of the disinfector with air from below upward, before the steam can condense sufficiently to injure the articles disinfected. The large RZOK and the smaller BOECKMANN sterilisers were scientifically perfect and efficient. Disinfection by formaldehyde gas was the most recent method, and probably one of the most efficacious and economic known. The necropsy laboratories and museum departments should be together in a separate building and include a crematory. The kitchen, laundry, boiler and bath-house should also be in a building or buildings entirely separate from the hospital proper. A well-managed, though poorly constructed, hospital would, however, give a far better result than a finely constructed hospital with bad management. Badly constructed and managed hospitals would be built, and the causes of disease would continue to create preventible diseases just so long as doctors left these matters to business men, politicians and their architects, especially when the latter happened to be amateur ventilators and sanitarians. Such institutions were always liable to cause hospital diseases and become centres of infection, thus defeating the very object they were intended to promote.

DISCUSSIONS AND NEWS.

RENAL-TUBULAR PAIN.

In a paper read before the Canterbury Section of the New Zealand Branch of the British Medical Association, Dr. F. CLARKE FARWICK, M.B., M.D., L.R.C.P., Surgeon to Christ Church Hospital, New Zealand, spoke on the subject of genito-urinary pain. We extract from the *Australasian Medical Gazette*. After recalling with some minuteness to those present the nerve supply, both sympathetic and somatic, of the abdominal cavity, with special reference to the urinary organs, the speaker pointed out that the belief was justifiable that an abdominal organ may, under various conditions of disease, set up irritation in its sympathetic nerve supply, which could be conveyed to the spinal cord, and thence might be reflected to certain spinal nerves, and so find expression in that part of the body which is supplied by the particular spinal nerve receiving the reflected irritation. In regard to backache due to renal disease, the speaker distinguished two varieties: (1) The back seemed bruised, the pain being dull and throbbing, with no stiffness, no increase on movement or subsidence on rest. On pressure the pain was not appreciably increased. The patient was unable to rest in any posture, but in many cases found most ease in the prone position. The urine was always scanty, high coloured, acid, and small in quantity. The patients were all small drinkers and non-smokers, and the pain was obviously due to renal congestion. The only successful treatment was hot baths and free drinking, with a course of saline diuretics. (2) The pain was sharp, lancinating, increased on the least movement, causing stiffness; the muscles were tender on pressure, and great relief was given by complete rest. The urine was abundant, very light coloured, of very low specific gravity and extremely acid. There was frequent micturition due to the hyperacidity reacting on the vesical mucous membrane. The only successful remedy was liquor potassae in 15 minims doses till the urine became alkaline. The patients were, invariably young adults, who indulged freely in meat and drank strong tea. The pain due to renal calculus was distinguishable by its limitation to one side, and extension round to the front and down to the testicle or groin. From hyperacidity of the urine the speaker had known even violent asthma to follow, cured simply by rendering the urine alkaline. The explanation lay in the connections which existed between the renal plexus and the pneumogastric nerves. The retraction of the testicle in certain renal cases might be understood, by remembering the cremasteric nerve supply was derived from the genito-crural, and that the renal plexus was closely connected to the upper part of the lumbar plexus. The acute collapse and vomiting during the passage of a calculus found explanation in the relationship between the filaments which cover the ureter and are derived from the hypogastric plexus, which also supplied the coronary and diaphragmatic plexuses by its brotherhood to the solar plexus. Whilst the kidneys had their pain area at the upper lumbar region, the pelvic organs had theirs at the lower lumbar and upper sacral portion of the spine. The bladder was covered with a delicate network of a plexus derived from the hypogastric, but consisting in large part of fibres from the third and fourth sacral nerves, and thus an immediate connection was made between the sympathetic and somatic nerves. In bladder tetanus, as from tumour, the principal pain was referred to the fifth lumbar spine, whose pain in the prostate was also referred to. The speaker had noticed that a congested prostate with much pain

associated with haemorrhoids was almost pathognomonic of masturbation. The severe backache of chronic constipation was situated slightly lower, corresponding to the sternal level—the first sacral vertebra. The junction of the dorsal and sacral nerves explained the pain felt in the glans penis in certain cases of carcinoma vesicae and irritation of the vesicae by the presence of stone. In conclusion, Dr. FARWICK propounded two questions for discussion: (1) Was it not possible that the so-called gonorrhoeal rheumatism was a sympathetic advertisement of the urethral condition? The frequency of the left knee being selected, and the intimate relations between the anterior crural and sciatic nerves (which supply the joint) and the sympathetic plexus made this a debatable question. It was true the gonococcus had been found in the pus in the affected joint, but was not that particular joint selected by the nerves connecting it with the diseased part? (2) Ocular fever was so sudden in its development, occurred in the practice of the most scrupulously clean surgeons, and was apparently so unavoidable, that there was a great presumption in favour of a sympathetic origin. If it was due to nervous irritation passing through the urethral nerve supply, the speaker asked whether any had noticed its occurrence after the use of cocaine; and as this method had proved successful with him, suggested that in every case in which a tendency to nervous excitement was suspected, cocaine should be used before catheterisation. He had never seen an attack after perineal section, even when a catheter had been used in for days, and attributed this to the short length of the urethra occupied by the instrument.

SUB-HEPATIC ABSCESS.

MR. JAMES CANTLIE, M.B., F.R.C.S., Surgeon, Seamen's Hospital Society, gives in a paper read at the last Annual Meeting of the British Medical Association, his personal experience of subhepatic abscesses. We extract from the *British Medical Journal*. The cause of this affection is attributed, as in suprahepatic abscess, to inflammation of the lymphatics and possibly the lymphatic glands on the under surface of the liver. The only definite sign was a tumour in the epigastric region along the costal margin, containing pus and having for its boundaries the liver above and an inflammatory thickening of the perihepatic tissues around. As this condition could only be exactly elucidated during an operation, clinical evidence could at most suggest the possibility of such a condition. The local signs and symptoms in the author's cases were: (1) A tumour projecting from the anterior margin of the liver to the left of the falcus of the gall-bladder and behind the right rectus muscle like a full gall-bladder, though situated to the right of the position where the gall-bladder was usually found. (2) Perihepatitis with friction sounds showing an increased area from day to day. As the area extended, friction sounds disappeared from the centre of the dull area, but continued to spread at the margin, showing the formation of central adhesions and a widening in the perihepatic inflammatory area. (3) Hepatitis not marked and area of liver dulness not much, if at all, increased. (4) General symptoms: rise of temperature 3 or 4 degrees, occasional rigors, generally paresis of the intestine or, on the other hand, loose bile-stained stools and the usual disturbance of circulation and respiration. Positive evidence, however, could only be established by operation. The diagnosis was unattended with difficulty. Gall-bladder inflammation was most likely to be mistaken. The history of the case, especially residence in, or a visitation to, the tropics, would guide, but the surgeon should be prepared, when about to operate, to deal with either condition. The pus from the abscess possessed but little

resemblance to liver-pus, being creamy and much like that from an abscess elsewhere in the body.

Prognosis.—Good: no deaths in the author's list of cases.

Treatment.—The usual tapping by a large trocar and drainage by a large tube: incision when adhesions were known to have formed. In respect to the depth to which it was safe to puncture the liver itself, Mr. CANTLIE stated that by a study of frozen sections he had found that in a body with a circumference over the hepatic area of 32 inches the centre of the inferior vena cava was from $4\frac{1}{2}$ to 5 inches off the surface, in a line drawn horizontally from the neighbourhood of the xipho-sternal articulation to the angles of the ribs behind. With this measurement it was not safe to penetrate more than $3\frac{1}{2}$ inches in a horizontal direction. For every inch of circumferential measurement above or below the 32 inches a quarter of an inch could be added to, or subtracted from, the depth it was safe to penetrate. Every puncture of the liver by a needle caused a slight or even a considerable flow of blood subsequently into the peritoneal cavity, as Mr. CANTLIE had been able to prove clinically; but in all probability it was this very flow which contributed to the marked benefits usually following liver puncture. The dangers of hepatic hemorrhage were confined to puncturing the inferior vena cava, the extra hepatic portion of the portal vein, or penetrating a mass of malignant tissue occupying the liver.

BURIED ALIVE: "A VOICE FROM THE GRAVE!"

A WRITER in the *Medical Times and Hospital Gazette* says:—Many people are apt to treat the subject of premature burial lightly, to pooh-pooh it, and, in fact, to declare that the cases recorded exist only in the disordered brains of the narrator. The reason for this is that they have never studied the subject, nor has it come home to them, as in the numerous cases of recovering life and consciousness after being medically certified as dead and laid out for burial. Nevertheless, burial alive is a real danger, and will continue to be so until proper precautions to prevent it are legislatively adopted. Doctors cannot be expected to be infallible: they sometimes make mistakes in the diagnosis of ordinary diseases, and it is especially difficult to distinguish between real and apparent death. All the so-called signs of death, except putrefactive decomposition, are more or less fallacious. Not many days since, an American gentleman, lecturing at St. James Hall, stated that his own child had been pronounced dead by physicians, and to all appearance such was the case, and yet the little patient recovered. A remarkable instance of medical liability to error in the matter of life or death, related by the Right Rev. SAMUEL FALLOWS, of Chicago, missionary bishop of the Reformed Episcopal Church, appeared in the *Weekly Times and Echo* on 8th June last. It would occupy too much of your valuable space to give it as published, but the main facts are as follow:—The wife of a young business man, a woman of strong emotions and most delicate perceptions, became ill, and after a few days of agony, apparently died. There was not the least doubt about it in the doctor's mind. The usual phenomena of death were present, a certificate was made out, an undertaker called in, the body was placed in a coffin, and on the third day buried in a cemetery at some distance from the home. The husband grieved greatly, so much that his relations feared an attack of melancholia, and a cousin stayed the night to cheer him up. After long wakefulness, the sorrow-stricken husband fell into a disturbed sleep and in the middle of the night was awakened by a voice calling, "CHARLES! CHARLES!" It was a dream, he

thought, and went to sleep again, but was, once more aroused by an unfamiliar voice saying, "CHARLES! CHARLES!" Still thinking it only a dream, he again slumbered, when at daybreak he heard and recognised his wife's voice crying in tones of distress, "CHARLES! Save me! CHARLES!" He sprang out of bed, and finding himself alone, rushed into his cousin's room, shouting, "Get up! Get up! We must hurry to the cemetery! She is alive! She is calling me!" Although of a sceptical nature, the cousin was strongly impressed by the man's impetuous conviction. Both hurried on some clothing, and while one harnessed the horse to a light buggy, the other procured spades. Having driven rapidly to the cemetery, they leaped out at the graveside, hastily dug till they reached the coffin of the woman who had been buried the previous afternoon, wrenched off the lid, and found the poor creature feebly trying to turn over in her narrow bed, but quite unconscious. The two men carried her to the buggy and drove home, and under very careful medical attention, the lady slowly recovered from her malady. Bishop FALLOWS says: "I am now engaged in an effort to so adjust matters in the interest of science, that the story may be investigated and its truth made as manifest to the most sceptical as it is to me."

PHYSICAL vs. MENTAL EDUCATION.

THE *Medical Brief* says:—A recent writer argues that tenement children would derive far more benefit from a compulsory physical education than from a compulsory mental education.

From a purely medical standpoint this may be true; but from a politico-social standpoint it is at least open to doubt.

Physical development, without enlightenment and culture, makes men brutal and violent. It breeds forced ideas and methods. Physical development alone hardens men, makes them resistant to the forces of disease and suffering at the expense of character growth. To make physical education of prime importance may be all right for military nations, who maintain immense standing armies; but in America individualism is the corner-stone of civilization.

Physical exercises and sports, in moderation, to develop the body symmetrically, and place all its parts under control of the will, are excellent for health; but even this can be dispensed with rather than neglect the mind.

Enlighten the mind, teach it to think logically, and it will find ways and means to release the body from the bondage of ill-health and weakness. Mere muscular strength is brute strength, and brutalizes the aims, ambitions, tastes, etc., of those who possess it. Men find their chief pleasure in the exercise of their best developed powers. It is easier to develop muscular force than intellectual force, the former being lower in the scale of development.

This fact has been instrumental in bringing about a reaction against college athletics. Instead of making athletics a means to an end, to keep the body in health and take off nervous tension, students have shown a growing tendency to make athletics the particular feature of college life at the expense of the studies.

Physical exercise of a varied nature, sufficient to circulate the blood freely and relieve obstructions, to promote elimination and keep all muscular structures in a tonic condition, is helpful; but any greater expenditure of vitality in this direction, except what may be necessitated by occupation or circumstances beyond our control, is wasteful and injurious.

COLONIAL MEDICAL QUALIFICATIONS AND THE BRITISH MEDICAL REGISTER.

THE *British Medical Journal* says:—In a letter signed "ONLOOKER," addressed to the *Western Morning News*, the mistaken statement is made that the War Office is unable, under the Medical Act of 1858, to recognise any medical degree not obtained in this country, and an attempt is made to rouse popular indignation against the "obsolete Act" by inferring that the welfare of our troops in South Africa was thus imperilled. Medical readers will of course know that the statement and inference are quite erroneous. Medical practitioners with Colonial degrees not only served with the troops during the Boer war, but are still serving as medical officers in that war, which still continues, although the correspondent to whose letter we have referred styles it "the late war." The *Medical Register* now contains a Colonial List, upon which can be found the names of medical men who have obtained degrees in certain Colonies. The correspondent has fallen into the error by not remembering or not knowing that the Medical Act of 1858 was amended by an additional Act of 1886. By this amended legislation, where a person shows to the Registrar of the General Medical Council that he holds a recognised Colonial medical diploma or diplomas (as hereinafter defined) granted to him in a British possession to which this Act applies, and that he is of good character, and that he is by law entitled to practise medicine, surgery, and midwifery in such British possession, he shall, by application to the said Registrar, and on payment of such fee, not exceeding £5, as the General Medical Council may from time to time determine, be entitled, without examination in the United Kingdom, to be registered as a Colonial practitioner in the *Medical Register*. In the Act power is given to Her Majesty through the Privy Council to define from time to time the Colonies to which the Act shall apply; but it is laid down that the Colony must afford to the registered practitioners of the United Kingdom such privileges of practising in the Colony as to Her Majesty may seem just. The Colonial medical diploma which is to be registered must be recognised by the General Medical Council as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery. The current issue of the *Medical Register* contains the names of eight Universities and one College in British possessions granting degrees which are registrable in the Colonial List. These are the Universities of Sydney, Adelaide, Melbourne, and New Zealand in Australasia; the Universities of Bombay, Calcutta, Madras, and the Punjab in India; and the Ceylon Medical College.

FACTS REGARDING CRIMINAL ABORTION.

We quote the following from the *Medical News*:—Dr. DUNSTON LEWIS estimates that 80 per cent. of all married women who become pregnant wish they were not. Old ladies recommend the use of different teas, hot douches, hot baths and violent exercise. Cathartics, emmenagogues, and ergot are advised, and among the ignorant, arsenic, metallic mercury or other poison has been taken, usually with fatal result. These means often fail. Cases are cited where women fell from great heights, sustained fractures, were beaten to unconsciousness, and suffered even fatal traumatism without severing connection between mother and child. At other times very slight injury produces abortion. Alum water injections have caused death. One woman produced abortion upon herself thirty-five times with a knitting-needle. Death has occurred simply from the introduction within the uterus of a cannula. The intra-

uterine injection of glycerine has proved fatal. An embolism has occurred, also mercurial poisoning, from a bichloride douche. The uterus is not always entered by the foreign body. THOMAS's case is cited in which a physician's wife passed an umbrella rib through the vaginal vault, the abdominal cavity and diaphragm until it perforated the lung. Other cases are instanced where an elastic sound entered the cervix for two and one-half years, and where metastatic abscesses formed in brain and elsewhere. LEWIS cites a case of his own, in which a silver catheter had perforated the posterior uterine wall and was removed from under the liver by abdominal section. In this case the pregnancy was uninterrupted. Other cases show a glass rod retained in the broad ligament, a seatangle tent found posterior to the uterus, a needle seven cm. long observed in omentum during the performance of CESAREAN section. Sometimes no discomfort results, at other times a suppurative process causes its expulsion into adjoining viscera. A fatal injury of the internal iliac artery is recorded. Utero-intestinal fistula has occurred. Two cases are instanced where a knitting-needle was forced through the umbilicus into the uterus. The relation of repeated abortion to degenerative changes and diseased states of the nervous system is considered as well as the production of sterility by infection of the tubes.

DEATHS FROM WILD ANIMALS AND SNAKES IN INDIA.

"THE element of tragedy is nowhere more apparent in the reports issued by the Government of India than in the annual return setting forth the terrible mortality caused among human beings and cattle by the depredations of wild animals and snakes." So says the *Times of India*, and proceeds to give the following details:—"Last year 2,966 people died from attacks by wild beasts, while the enormous number of 24,621 deaths from snake-bites was recorded. The Bombay Presidency only contributed 1,148 to this total, of which 26 were deaths from animals, the remainder being due to snakes. Bengal is by far the greatest sufferer, for the province figures in the returns as having lost 1,632 people through wild beasts and 12,220 through snakes. The relative destructiveness of the different animals is revealed in a table showing that during the year 899 persons were killed in India by tigers; 338 by wolves; 327 by leopards; 95 by bears; 40 by elephants; 27 by hyenas; and 1,230 by "other animals," chiefly jackals and crocodiles. Tigers are so destructive in Bengal that the desirability of devising special expeditions for their extermination was considered by the local Government, but it was eventually decided to leave the matter to local enterprise, 'stimulated by the offer of liberal rewards.' In the district of Gaya a local committee has offered Rs. 300 per head for man-eaters, while Rs. 200 is now paid in Ranchi and Singhbhum. In the Bhamo district of Burma a single man-eating tiger is said to have killed twenty people, and the ravenous brute must be held to have been cheaply killed at Rs. 100. Another tiger was responsible for the deaths of twelve persons in the North Cachar Hills in Assam. In the North-Western Provinces 271 people were destroyed by wolves, which are particularly plentiful and dangerous in that part of India. The numbers, however, were considerably lower than was the case in 1896 and 1897, when the prolonged drought and scarcity made the wolves unusually daring. The exceptional mortality from snake-bite in Bengal is attributed to floods, which drove the snakes to the high lands on which village homesteads are built. Nearly a hundred thousand head of cattle were killed by

wild beasts and snakes during the year, of which total all but 9,449 were due to animals. Leopards killed 37,988 of this number, and in Bengal inflicted far more loss upon the herds than tigers. The work of exterminating these various dangerous pests went on pretty much as usual. Thus, 1,570 tigers were killed, 4,548 leopards, 3,317 wolves, 776 hyenas, and 94,548 poisonous snakes; but in the fierce battle between man and the lower orders of creation in India, the balance of victory continues to incline towards the beasts.

BAD SPELLING AND CARELESS DISPENSING CAUSE DEATH.

An inquiry was opened at Portfield, near Chichester, on November 30, into the circumstances of the death of a six months' old infant, AGNES MARY LEGGATT. The child had recently been vaccinated and the arm was sore and swollen. Dr. BUCKELL, who was called in, prescribed an antiseptic powder, which his dispenser (Mr. WIDALL) made up. The dispenser cautioned the woman about the use of the powder, telling her it was poisonous, and on the box the words "Poison (underlined) powder" were written. A quantity of the powder was dusted over the child's arm, and she went to sleep and never woke up again. Dr. ARTHUR EDWARD BUCKELL, in the course of his evidence, said he wrote a prescription for "Urophen and boracic acid," and took it into the surgery to be dispensed. The former word, he said, was also spelt "Eupraphen," but he had always been accustomed to spell it without the "e." The word, as he wrote it, bore a resemblance to "morphia," and thus a mistake had arisen. Mr. WIDALL (the dispenser) stated that he made up the prescription as he read it—"morphia, one scruple, boracic acid, two drachms." Nothing unusual struck him in the reading of the prescription as "morphia and boracic acid." He now understood the first word to have been intended for "urophen," but there was no "e" commencing the word.

At the adjourned hearing on December 8 the jury returned a verdict of death by misadventure, and expressed the opinion that more care should have been used in writing the prescription, and that the dispenser would have done better had he referred the prescription to the doctor before making it up.

REMOTE RESULTS OF CONSERVATIVE OPERATIONS ON THE OVARIES AND TUBES: AN ANALYSIS OF EIGHTY-FIVE CASES.

DR. W. L. BURBAGE (*Annals of Gyn. and Pediat.*) says:—

1. It is advisable to do conservative operations in all cases where the ovaries and tubes are not hopelessly diseased in all parts of their structure, except on patients who are near the menopause, or patients who have pronounced gonorrhoea of long standing, and on the rare cases of malignant disease.

2. If one tube is patent and healthy in appearance, and there is enough healthy ovarian tissue to preserve, a conservative operation ought to be performed, even in the presence of gonorrhoea.

3. In well-marked gonorrhoea of long standing, if both tubes are seriously diseased and closed, total removal with or without hysterectomy is the operation of choice.

4. If it is necessary to remove both ovaries, it is of no advantage to preserve any portion of tubal tissue, but, except under the conditions just enumerated, some ovarian tissue should be preserved in every case.

MURDER OF CAPTAIN JOHNSTON, I.M.S.

THE following particulars are in hand regarding the murderous outrage at Loralai. The deceased officer, Captain JOHNSTON, Indian Medical Service, was in medical charge of the 24th Bombay Infantry cantoned there, and held the additional appointment of Civil Surgeon, in which capacity he was returning to the cantonments on foot after visiting the civil dispensary at eleven o'clock on Wednesday morning accompanied by the hospital assistant in charge thereof, when, from the opposite hillock just outside the civil bazaar, behind which the latter dispensary is situated, the fanatic rushed at him with a drawn sword. The hospital assistant bolted, while Captain JOHNSTON, though quite unarmed, stood his ground. Having his right arm, which he must have raised for protection, cut clean off at the first blow, he was then hacked about the head. Death is believed to have been instantaneous. The fanatic afterwards pursued the hospital assistant a short distance, then turned off into the bazaar, where he was pluckily tackled by a fellow tribesman employed as jemadar of the levy. A chowkidar knocked him down and pinioned the assassin. As a Vamsa Kakar from the village Wahar near Loralai, he had returned from Kandahar three months previously. He will be tried when he recovers from the high state of nervous excitement in which he is at present medically reported to be. Captain JOHNSTON'S funeral came off on the evening of his death, and was attended not only by the few Europeans stationed at Loralai and the usual military escort, but by his whole regiment, and a tremendous concourse of natives of all ranks, classes and creeds. It may be noted that a Bengal Lancers regiment is also cantoned at Loralai, which is likewise the residence of the ex-Khan of Khelat.

MOSQUITOES AND MALARIA.

THE *Practitioner* says:—LAVRAN'S discovery of the plasmodium of malaria was long ignored; then the credit was given to some one else. In the same way the mosquito theory has been claimed for Americans, Italians, and others; and, of course, for the noble savage, whose untutored mind seems not infrequently to see things hidden from the bespectacled eyes of science. In KOON'S extraordinary reports from German New Guinea no mention is made of any other investigator; the subject is treated as if he were the COLUMBUS of an unknown continent of knowledge. KOON has been a great scientific conqueror, and is fully entitled to his triumph. But the way in which he drags at his chariot wheels the discoveries of other men is ultra-Germania in its insolence of self-assertion. In this particular field of research our German friends have done nothing at all. LAVRAN proved that malaria is a parasitic disease; MAXSON and ROSS have shown how the parasite is conveyed to man. The Italians have worked out certain details of the problem by following the course indicated by the British workers; but the credit of the solution belongs to our countrymen.

NEW CALCUTTA UNDERGRADUATES.

THE undermentioned candidates have passed the Second L. M. S. Examination:—

Bandyopadhyay, Prabodho Chandra; Bhattacharyya, Ganiprasad; Bhattacharyya, Sanadiprasad; Bhattacharyya, Satyendranath; Bhattacharyya, Hemachandra; Chaudhuri, Bijaykrishna; Datta, Manindrachandra; Datta, Nisanath; Datta, Parasath; De, Jaharaj; Ghosh, Basantakumar; Mandal, Purnachandra; Mitra, Guruprasad; Mukhopadhyay, Amulyakumar; Mukhopadhyay, Debendranath, I; Mukhopadhyay, Debendranath, II; Mukhopadhyay, Digamkrishna; Mukhopadhyay, Gupendranath; Mukhopadhyay, Naradranath; Mukhopadhyay, Prabhathath; S. M. Habibur Rahman.

SELF-DENIAL.

There may be glory in the night
That treadeth nations down—
Wreaths for the crimson warrior,
Pride for the kingly crown;
More glorious is the victory won
O'er self-indulgent lust,
The triumph of a brave resolve
That treads a vice in dust.—J. G. WHITTIER.

POISON IN BEER.

The flood of daily newspaper comment upon the Lancashire beer-trouble is unabated, and a brewers' commission, consisting of Sir Lauder Brunton, Dr. Thomas Stevenson, Mr. Gordon Salamon, Dr. A. P. Luff, and Dr. Buckley, has discovered that an invert sugar supplied by a certain company contains arsenic. This confirms Mr. Kirkby's observation. The commission has recommended that no beer should be sent out until it has been tested and shown to be free from arsenic. A certificate of freedom from arsenic should be given in respect of beer so tested, and only such beer should be sold.

I. M. S. OFFICERS AND LEAVE.

The continued stoppage of leave in the Indian Medical Service is pressing very hardly on a department which has long been overworked, plague, famine and military expeditions having combined to increase the labours of the medical officer. With no less than a hundred and twenty members of the service, however, told off on duty connected with the operations in China, there are not enough left to carry on ordinary duties in India, and at the same time to furnish the usual contingent for furlough. The re-opening of leave thus depends on the return of the officers from the China force; and now that the winter has set in, and active operations about Peking are suspended, it may become possible to spare a good many.

SHORT ITEMS AND PERSONALITIES.

The retirement from the 15th instant is notified of Lieutenant-Colonel G. M. J. Giles, I. M. S., Bengal, who will be specially remembered in connection with his investigation of *Kala-azar* disease in Assam, his scientific researches on the subject of the deep sea fauna of the Bay of Bengal, and of the mosquito in relation with malaria. He will be missed amongst a very wide circle of friends alike in Bengal, the North-West Provinces and Bombay.

Sir William Thomson has been asked by the Lord-Lieutenant of Ireland to remain Surgeon to the Household during His Excellency's stay in Ireland. Sir William having been recently appointed Surgeon to the Queen in Ireland, in the room of the late Sir William Stokes, had vacated the Surgeoncy to the Household. Sir William Thomson has been re-elected to his seat on the Council of the Royal College of Surgeons, his absence in South Africa having rendered void the election in June.

The ceremony of the presentation of the Kaiser-i-Hind silver medal to Dr. Cardox, Assistant Civil Surgeon and Vice-President of the Hubli Municipality, was performed on the 20th December in the Municipal Hall. The hall was tastefully decorated for the occasion. There was a crowded attendance.

The services of the following I. M. S. officers have been temporarily placed at the disposal of His Excellency the Commander-in-Chief in India:—Lieutenant-Colonels Danton (Bombay); Sarkies (Madras); Vaid (Bengal); Major Pissani (Bengal); Captains Vickers (Madras); Newman (Bengal); and Lane.

Dr. Martin J. P. Dempsey, F. R. C. P. I., Visiting Physician to the Mater Misericordias Hospital, Dublin, has been elected to the Chair of Materia Medica and Pharmacy in the Catholic University School of Medicine, rendered vacant by the death of Dr. F. J. B. Quinlan.

The hospital ship *Gwalior* will leave Calcutta for China about the 25th instant. She is being fitted up to accommodate European invalided troops in addition to Indian troops. Colonel Crofts, I. M. S., will continue to have chief medical charge.

Dr. Mohendra Lal Sircar, we are sorry to hear, is seriously ill and has been confined to his bed since the 2nd of January. He is suffering from urinary difficulty and fever due to the enlargement of the prostatic gland.

WANTED—A THIRD GRADE HOSPITAL ASSISTANT to come to Burma on mutual transfer with the undersigned. Any one from Punjab or N.W. P. will be accepted. For particulars, address:—

H. A.,
C/o Manager, "Indian Medical Record."

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

NOTICE.

All members of the Indian Medical Association are kindly requested to send their names in full with their present addresses, clearly written, to the Secretary.

Members who have paid their subscriptions and who have not received the membership certificates are kindly requested to notify the same to the Secretary.

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The *Indian Medical Record* offers the following prizes:—Rs. 10 to Rs. 16 for a good Original Article; Rs. 5 to Rs. 10 for a good Clinical Report. Competitors must be subscribers to the *Record*.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

News items of medical interest from all parts of the Indian Empire are asked for by the Editor for publication in the *Record*.

Current Medical Literature.

MEDICINE.

Treatment of Typhoid Fever.

D. E. ENGLISH, M. D., *New York Medical Record*, says:—In the treatment of typhoid fever we should ever bear in mind the nature and probable cause of the disease, for treatment directed to the relief of the symptoms only is not so uniformly successful as a combined, systematic and specific treatment. From this standpoint the writer states the following indications for treatment:—

- (1) To empty the gut of all infected matter as soon as possible.
- (2) To render the gut as nearly as possible uninhabitable by the microbes.
- (3) To prevent, as far as possible, the further absorption of the poison.
- (4) To neutralise or expel the poison already absorbed.
- (5) To keep the temperature within safe bounds.
- (6) To prevent, so far as possible, over-action of organs already damaged, i.e., to promote physiological rest, and avert rupture of the intestine.
- (7) To support the strength of patient, and guard against sudden collapse.

To secure the first three of these *desiderata*, purgation is recommended, an initial purge of calomel gr. x. to xxx., according to circumstances. If free catharsis is not secured by these means within six hours, magnesium sulphate 3i hourly is given. The treatment is then continued by administering podophyllin gr. $\frac{1}{2}$ to $\frac{1}{4}$, aloin gr. $\frac{1}{4}$ to $\frac{1}{2}$, every night and morning. The favourite intestinal is carbolated camphor. One ounce carbolic acid crystals and three ounces of camphor gum are put together in a glass vessel and allowed to stand a short time. A smooth transparent oily liquid is obtained, almost colourless at first, changing to a light pink with age. It is best given by dropping the dose into a capsule just before it is administered.

Ten to twelve drops may be given every two hours for forty-eight hours before there will be any change in the colour or odour of the urine, when it should be given less frequently, or the dose decreased. It need not be stopped for slight albuminuria.

Large and frequent draughts of sterile water are most valuable in neutralising the absorbed poison and expelling it from the body.

Temperature is controlled by the carbolated camphor in most cases. The author aims at obtaining an action of the bowels once or twice a day; if the patient is taking milk, four or even five movements a day seem to do no harm.

When it becomes necessary to check the bowels, which is seldom the case, small doses, gr. iiss. of Dover's powder are used. To prevent cardiac fatigue, absolute quiet should be maintained. When the pulse is rapid and soft, small doses of tincture of digitalis (about m. v.) in whiskey (about 3i.) may be given tentatively every four hours.

For diet during the first two weeks dissolved beef is relied on entirely. This is made after WEIR MITCHELL's formula. During the third week one pint of milk may be given every 24 hours in divided doses, largely diluted with sterile water, and with the addition of as much salt as will be palatable. Also the white of one egg in water, and one

entire egg beaten with the juice of one lemon, may be given each 24 hours.

Later, changes in diet are made at the physician's discretion.

[The comprehensive aim of treatment enunciated in this paper is more commendable to practitioners in this country than the means, chiefly by purgation, employed to attain it. Eliminative treatment by purgatives has few advocates in England.]

Puttee Paralysis (?) after Enteric Fever.

J. W. SPRINGETHORPE reports the case of a soldier who suffered from a condition frequently seen in that class after typhoid. Examination disclosed marked wasting of the tibial muscles of the left leg, with apparent wasting of the peroneal and extensor muscles also. The muscles reacted to the faradic current, but with a noticeable weakness. Those on the right leg showed no present difference or abnormality. There had been no implication of the calf muscles, and there was no present tenderness on pressure over the nerve trunks in that region. Under faradism and massage the muscles rapidly regained their normal reactions, and their action at the time of writing has become practically perfect. The trouble was thus confined absolutely to the muscles and surfaces supplied by the peroneal nerve, the musculo-cutaneous branch of which supplies the peroneus longus and peroneus brevis, together with the dorsal surfaces of the foot and toes, while the anterior tibial branch supplies the tibialis anticus, the long and short extensors of the toes, and the long extensor of the big toe, as well as the dorsal surfaces of the inner toes. This implication of the peroneal nerve suggested injury, and when symmetrical, bilateral pressure as the probable cause. Such a cause is at once suggested in the puttees used so extensively and indiscriminately by the soldiers in the South African campaign. On being asked, the patient stated that the last few rounds of the puttees were fastened rather more tightly than elsewhere directly over the head of the fibula, and thus pressed the peroneal nerve against the bone.—*The Lancet*.

Forms of Tremor, and their Clinical Characters.

R. T. WILLIAMSON states that the relation of tremor to voluntary movement enables us to arrange the cases into three groups; but there are other sub-varieties. (1) Tremor occurring during repose of the limb, but ceasing or diminishing on voluntary movement, with attention tremor which ceases when an object is grasped, or when the hands are held out. The tremor in paralysis agitans is usually of this form. (2) Tremor occurring only on voluntary movement and ceasing during repose (intention tremor). This is the form of tremor in disseminated sclerosis, even at an advanced stage; but several other forms of tremor, at a very early stage, occur only on voluntary movement. (3) Tremor which occurs during repose, but which is much greater during voluntary movement; as in most cases of marked alcoholic, senile, asthenic, simple, and hysterical tremor, and in several other varieties.—*The Medical Chronicle*.

SURGERY.***Tuberculous Lesions from a Clinical Point of View.***

EDMUND OWEN, M.B., F.R.C.S., in the *Canada Medical Record*, makes the following statements: "(1) Chronic inflammation of a joint in a child or young person is always tuberculous, except in those very rare cases in which it is due to hereditary syphilis or osteo-arthritis. (2) Tuberculous inflammation may completely destroy a joint, and then leave it solidly and soundly synostosed, without the surrounding tissues or the skin having been implicated. (3) If tuberculous granulation tissue breaks down into a fluid, that fluid is not pus, and the collection is not, properly speaking, an abscess, unless by bad fortune, or by worse surgery, it has become infected by septic micro-organisms. (4) The fluid collection is not to be treated as an abscess—by incision and drainage, that is—but is to be opened and emptied and scraped and cleansed of its unhealthy lining of granulation tissue. Then the wound in the skin is to be completely closed by sutures; firm pressure is to be evenly applied, and the part is to be kept absolutely at rest. It is no news to most of you to be told that the success attending this line of treatment leaves, as a rule, little to be desired, or that for this important advance in practical surgery we are chiefly indebted to the patient researches of our friends with the smock frocks and the guinea-pig. (5) I have failed to discover that iodoform is of any peculiar value in the treatment of tuberculous lesions. At any rate I have long since discarded it, and I have not noticed any falling-off in the results of my practice in consequence. Iodoform is an irritant and a poison, it is apt to be septic, as germ can grow upon it; but I have no knowledge of the truth of the statement that mushrooms have actually been cultivated on it."

Total Gastrectomy.

V. DE CARVALHO (*Lancet*) records the case of a Brazilian mulatto woman, aged forty-six years, whose emaciation had advanced so continuously that she weighed but sixty-eight pounds; she had always suffered more or less from gastric pains since her youth, with recurring attacks of gastralgia followed by vomiting (occasionally of blood); becoming more frequent and severe. On examination a tumor, the size of a turkey's egg, was found in the right epigastric region close to the costal margin, the tumor being moveable and painless on deep pressure; a median excision extending from the xiphoid cartilage of the sternum to the umbilicus was made and the tumor exposed; owing to the adhesions of the stomach to adjacent viscera, gastro-enterostomy which had been contemplated was deemed inadvisable; hence gastrectomy was decided upon and performed in the usual way, great difficulty being experienced in enucleating the stomach and in approximating the duodenum to the esophagus. Although the patient's condition was poor during the operation, requiring stimulation, and the introduction of artificial serum intravenously, the patient came out from the operation nicely; rectal feeding was continued for six or seven days; at the end of the ninth day the superficial wound had healed and the patient was able to take small portions of solid food, which were readily digested. This is the fourth successful operation thus far recorded, being the first one to be done successfully in Brazil.

Operative Treatment of Ugly Ears.

JOHN B. ROBERTS believes this subject particularly worthy of attention, since the operative treatment for the correction

of these conditions is free from risk and generally unaccompanied by confinement to bed or even absence from business pursuits. A lacerated or incised ear may be so carefully sutured that the shape of the organ may be well preserved even after considerable loss of structure. After the removal of tumors, or the occurrence of sloughing from burns or traumatism, it may sometimes be necessary to alter the shape or size of the uninjured ear to make it correspond with the injured member. If new tissue is demanded to replace that which has been lost, it may be transferred from the neck or cheek, or transplanted from the hand, abdominal wall, or thigh. Orthopedic measures are applicable in some cases—pads, springs, or repeated use of collodion. Artificial ears of celluloid papier-mache, or platinum, properly tinted, may replace an absent member; or repeated plastic operations may suffice to restore some semblance of the original ear. Congenital nodules are to be excised as a rule. Very large ears may be reduced by excising a wedge-shaped piece, or by taking a crescentic piece from the central part of the auricle and a horizontal strip outward from the centre of the convex margin of the crescent. Flaring ears are corrected by excising a vertical ellipse of skin and fascia from the posterior surface of the auricle and the adjacent part of the skull and then cutting a vertical wedge-like strip from the exposed cartilaginous structure of the ear. The auricle is then sewed close to the skull. In lap ears the suggestion is made of stiffening the auricle by inserting a thin sheet of metal in the tissues, after which it might be bent to the normal shape of the organ.—*Med. News.*

Operating on the Prostate.

CLARKE advises, in operating on the prostate, that the operation be done at two sittings. At the first the bladder is opened suprapubically and a couple of stitches passed through the bladder wall, one on either side, and a good-sized tube left in the suprapubic opening to prevent so much contraction that the surgeon would not be able to pass his finger into the bladder for examination. The drainage of the bladder thus established allows the patient to rapidly improve in health, and in a week or ten days he is ready for the second part of the operation. This time an incision is made in the perineum as for lateral lithotomy, until the prostate is reached. The finger of the left hand is then introduced into the suprapubic opening, and the prostate pushed down towards the perineum, which procedure greatly aids the removal of the gland itself. The hemorrhage in all the cases reported was insignificant, this being attributed to the subsidence of the congestion around the prostate and the base of the bladder, occurring between the two operations.—*Phil. Med. Jour.*

Traumatic Joints.

HOMER GAGE concludes his paper on this subject as follows: (1) All injuries to joints accompanied by loss of function are always attended by more or less laceration of the tissues in or about the joint. (2) The delays in the restoration of function are due in most instances not to any complicating diathesis, but to the changes incident to the repair of these lacerations and their effects. (3) Such delays are best avoided by an early resort to massage and active or passive motions, and are favored by too long a continuance of rest and fixation. (4) When such delays have occurred, they are best overcome by more vigorous and persistent manipulation, supplemented by the application of heat or such other agents as may best stimulate the local circulation and favor the elasticity of the tissues.

OBSTETRICS AND GYNÆCOLOGY.**Extraction of Living Twin 19 Minutes after Death of Mother.**

KIRCH was called in by the friends of a shopkeeper's wife who, they said, had just died suddenly three-quarters of an hour after giving birth to a child. She was 40 and subject to mitral disease, the result of rheumatism. Very grave cardiac symptoms had developed at the end of the previous pregnancy. KIRCH at once visited the patient, who lived close to his house; he found her quite dead; much sanious mucous had run out of her mouth on to the pillow. A nurse was attending the new-born child. KIRCH found a foetal leg projecting from the vulva. He at once extracted the foetus—it was asphyxiated, but was revived; however, it died within a few hours. On the evidence of KIRCH and the nurse the second twin was delivered just 19 minutes after the death of the mother. The husband stated that the patient had calculated term at three weeks later. She was working in the shop till 10 P. M.; a few minutes later pains set in, then the membranes ruptured. She was speedily put to bed and the child was at once delivered spontaneously. Dyspnoea then set in, lasting for some time, when the woman suddenly ceased to breathe, froth escaping from the mouth. KIRCH arrived a little before midnight.—*Brit. Med. Jour.*

Normal Labour after an Unnecessary Cesarean Section.

BISSEL publishes clinical details of a case very grave from an ethical aspect. A married woman, aged 19, and pregnant, was subject to prominent coccyx. Her physician did not even make an effort to deliver her with forceps; he had satisfied himself several months before term that the child could not be born through the genital canal, and openly declared that the long-looked for opportunity of his life had arrived. He performed CÆSAREAN section, and afterwards advised the patient to have her uterus removed, for another pregnancy, in his opinion, would kill her. She consulted BISSEL about two years after the operation. The pelvic measurements were perfectly normal. The coccyx was slightly sensitive to pressure, and inclined considerably forward, but it was moveable and did not diminish materially the antero-posterior diameter of the outlet. A few months later she became pregnant. BISSEL attended her in labour. He found the pains strong, the head presented in the right occipito-anterior position. But a few hours later, as the head did not descend well and the pains were weak, he ruptured the membranes. This did not stimulate uterine action much, so the forceps was applied, and the child, which weighed a little under eight pounds, was delivered with comparative ease. The perineum was lacerated, but immediately repaired. Mother and child did well. Thus the previous operation, though utterly unjustifiable, did no more harm than to cause slight atony of the uterus.—*Brit. Med. Jour.*

Symphiseotomy.

THE dangers of symphiseotomy, according to CARR are: (1) Dangers from anaesthesia and from shock, which are unavoidable. (2) Danger from infection, which is unnecessary but real. (3) Danger of attempting it in unfavorable cases where the pelvis is too small. He goes at some length into the discussion of this subject. (4) Danger of lacerating the bladder or uterus or the sacro-iliac ligaments. This can be avoided by insuring not over two and a half inches separation in all cases, and there will then be no laceration of tissues excepting some peeling off of the periosteum. (5) Danger of hæmorrhage from rupture of the anterior vesical veins or those of the clitoris. Usually this may be checked by gauze packing, but may be entirely obviated by separating the tissues carefully all around the symphysis, and for three-quarters of an inch to one inch on each side of the median line. (6)

Danger of sepsis, and the failure on special antiseptic precautions, using 1-2000 bichloride solution freely. (7) Discomforts and dangers that may follow from the imperfect methods of coapting the bones, which he thinks can be obviated by wiring the joints. This should be done in every case. The two cases he reports are not enough to base an opinion upon, but they show that wiring the bones does not necessarily produce any bad results. The contrast between the cure where wiring was used, and that where it was not, is most marked, and until this becomes part of the operation, symphyseotomy will not meet with general favor.—*Jour. Amer. Med. Assoc.*

Cervical Metritis.

POZZI presents the following conclusions on this subject: (1) Acute or chronic inflammation of the cervix can exist for a long time without invading the body of the uterus. (2) Nevertheless, the acute lesions of the cervical mucosa easily extend to the mucosa of the body, and the chronic lesions of the cervical parenchyma of inflammatory origin (sclerous and sclerotic degeneration, partial or total) promptly react on the nutrition and anatomical condition of the entire uterine body. (3) The operation of trachelorrhaphy is inferior to the biconical resection of the cervix, more or less modified according to circumstances. It ought to be abandoned. (4) There are a large number of acute, sub-acute, or chronic inflammations of the cervical mucosa in nulliparæ, which are dependent on the narrowness of the external orifice, and on the insufficient drainage resulting therefrom. The most important part of the treatment is then to reconstruct by operation in a durable manner an orifice large enough for the cervix.—*Annales de Gynecologie et d'Obstetrique.*

Operation devised for the Treatment of Marked Prolapse of the Rectum in Women.

J. WESLEY BOYER says:—The patient was a woman, aged thirty-five, who suffered from large external and internal hæmorrhoids and a protruding roll of fully three inches of rectum that was thickened and much discolored. The uterus was of about normal size, with its cervix just behind the pubes and the fundus very low posteriorly. The hæmorrhoids were first removed, then the abdomen was opened by the usual sub-umbilical median-line incision. The left ovary was of about three times its natural size and largely consisted of numerous cysts. The appendages were removed and the uterus was firmly fixed to the abdominal wall by four strong interrupted catgut sutures, which passed through a considerable portion of the uterine fundus at the top, and the principal fascia of the abdominal wall on either side of the incision. The rectum was now drawn upward until it was fairly tense, and was so held by an assistant until it was sutured to the *cul-de-sac* and posterior wall of the uterus, up to the abdominal wall. This was done by a running catgut suture. It completely divided the retro-uterine pelvic cavity into two equilateral ones. The patient was doing well eight months after operation, with no relapse.—*New York Medical Journal.*

Compression of the Ureters by Myomata Uteri.

THE conclusions of KNOX's article are given as follows: (1) Some compression of the ureters is produced by a large proportion of all large myomatous uteri. (2) The resulting hydro-ureter and hydro-nephrosis may continue for years and give rise to no discomfort to the patient. (3) The presence of a dilatation of the ureter and renal pelvis, however slight, lowers the resistance of these organs to toxic and infectious agents, and hence inflammatory conditions of the ureter and kidneys not infrequently follow ureteral compression. (4) In all instances of uterine myomata, the possibility of urethral involvement must be considered. When such a condition is suspected, every effort should be made by means of direct examination—urethral catheter, etc.—to arrive at an accurate diagnosis. (5) Exploratory incision is occasionally justified to establish a diagnosis. (6) The ureters should be inspected whenever the abdomen is opened for the removal of a tumor. (7) A myomatous mass found to be existing under pressure upon one or both ureters should be removed, if possible, unless operative interference is contraindicated. Such serious sequelæ of ureteral compression as extreme hydro-nephrosis, pyelo-nephrosis, etc., should receive appropriate treatment.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Physiology and Pathology of Inheritance, or what do we inherit from our Parents?

THOMAS OLIVER says that, from a physiological point of view there is considerable evidence to show that mental, not less than physical, qualities are transmitted; that pathologically such a disease as hæmophilia is inherited, and that, when there is a family history of phthisis and cancer, there is, especially as regards phthisis, a greater liability to the disease than when a family shows no such record. He believes that the influence of inheritance, however, has been exaggerated. Tuberculous disease is inherited, but only in the same sense as are other diseases that are due to microbes: it is in the form of an enfeebled resistance on the part of the tissues. Pulmonary phthisis seems to exhibit a kind of inheritance that is particularly its own, but on scrutiny this is found to be largely due to the domestic character of the malady which is encouraged by our home life, insanitary dwellings, overcrowding of the poorer working-classes, infection, Britain's changeable climate, dusty occupations, and ill-assorted marriages.—*New York Med. Rec.*

Bile in the Urine.

DR. WALSH, in a recent clinical lecture, gave the following simple plan of detecting bile in the urine: "A considerable quantity of urine, from six to eight ounces, is allowed to pass through a piece of white filter-paper. This is then spread on a plate and touched with a glass rod that has been dipped in crude nitric acid. A play of colors develops, green forming the outermost ring. This test is very delicate."—*Journal of Medicine and Science.*

Value of Blood Examination for Diagnostic Purposes.

JULIAN WALTER BRANDEIS first considers the diseases in which blood examination is essential to diagnosis. These he enumerates as: chlorosis, secondary anæmia, pernicious anæmia, leukaemia (both myelogenous and lymphatic) HODGKIN'S disease, anæmia infantum, pseudo leukaemia, malaria, relapsing fever, and færia sanguinis hominis. As characteristic of the blood of children, the writer mentions the following points: A leucocytosis, polycythæmia, and increased percentage of hæmoglobin are characteristic of the blood of the new-born, but gradually disappear. Any influence retarding the child's development causes a leucocytosis, a large percentage of the corpuscles being lymphocytes, and the appearance of nucleated erythrocytes without necessarily the co-existence of an anæmia. Also, in the anæmias of infants and children, the red cells are destroyed to a greater extent, and degenerative changes are more marked than in like cases in adults. Nucleated erythrocytes and myelocytes are more common than in anæmias of corresponding severity in adults. In certain cases the discovery of the etiological germ in the blood has rendered the diagnosis of the following diseases positive: Typhoid, tuberculosis, tetanus, ulcerative endocarditis, anthrax, grippe, glanders, septicæmia, pyæmia, and pneumonia. The writer then speaks of diseases in which blood examinations are an important aid to differential diagnosis and prognosis. For example, both in pneumonia and diphtheria the absence of leucocytosis in any but the mildest cases is a bad sign. NEUBER is quoted as stating that in deciding whether a case of hysteria, neuritis, or psychosis would be benefited by castration, the presence of a eosinophilia suggests the affirmative.—*New York Med. Rec.*

Pyogenic Origin of Rheumatism and the role of trauma in its Causation.

PHILIP KISSINGER's views still further complicate the already unsettled condition of the rheumatism question. It is now almost universally admitted that the disease must be infectious in its nature, but as yet apparently no organism for which the claim of specificity can be upheld has been isolated. On the other hand, instances are numerous in which pure cultures of various pus-producing cocci have been obtained from the blood or other fluids of rheumatic patients, and the author seeks to justify his belief that acute articular rheumatism is closely allied to pyæmia by the citation of a large number of such cases. With this idea as a basis, the frequent occurrence of rheumatic joint affections after injury is easily comprehensible, for the local damage produces the place of lessened resistance, which is all that is needed to permit the germs to invade the tissues. These may have already gained access to the system through some separate site of suppuration, an angina, etc., or may directly penetrate the injured skin in the neighborhood of the articulation.—*Volkman's klinische Vorträge.*

Pathogenesis of Acute Yellow Atrophy of the Liver.

N. T. BAIMAKOFF found in the liver of a patient who died from this disease diplococci which were situated among the red blood cells. They were stained blue by methylene blue, and were in groups of from five to ten, or twenty, or thirty. An aureole resembling a capsule was around them. They were found in every part of the organ. No success followed the attempt to cultivate diplococci taken from the blood during life, nor from blood taken after death from heart, liver, gall-bladder, spleen, and kidneys. Diplococci may possibly be the cause of acute yellow atrophy, which is an infectious disease in which the liver shows more degeneration than do the other organs.—*New York Med. Rec.*

Chemical Resources of the Body serving as Antidotes.

ALEXANDER ELLINGER understands under the term antidote used in this sense not alone the ability to render harmless a certain quantity of any poison which may have penetrated into the system, but the stopping of its toxic action after it has already reached the circulation. A consideration of the etiological investigations of recent years brings the conviction that a vastly greater proportion of diseases than is supposed is due to the action of poisons either directly introduced, produced by adventitious organisms which have gained access to the body, or originating within it as the result of anomalies of metabolism. The whole understanding of the processes by which the system is enabled to combat these substances is still shrouded in mystery, and the only direction in which it is possible to approach the subject is by studying first the chemical processes by which the coarser poisons, whose composition is well understood, are disposed of. These are neutralization, oxidation, reduction synthesis, and decomposition, but for the details of their application to specific reactions reference must be made to the original paper.—*New York Med. Rec.*

Vitality of Certain Pathogenic Micro-organisms in the Juices of the Organs of Healthy Animals.

ANDREA CIACCIO from experimentation concludes: (1) That in the extracts of organs kept at a temperature of 37°C. (98.6°F.) micro-organisms were able to develop; (2) that the juices of the brain, liver, heart, spleen, lungs, and muscles of guinea-pigs and sheep possess antibacterial properties quite independently of temperature; (3) muscular tissue in especial possesses bactericidal properties. The value of the administration of raw meat in certain affections is well known, as, for instance, in tuberculosis; (4) the addition of certain other substances to the extracted juices appears to influence their properties; for instance, dog's serum and sodium chloride increase their bactericidal powers.—*Rassegna Internazionale della Medicina Moderna.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Some Important "Ifs."

If you want to get well or to keep well, don't worry.

If you want to be happy and to make others happy, don't worry.

If you want to be plump and fresh, don't worry.

If you want things to go right with you and yours, don't worry.

If you wish to be a helpmate to your husband, don't worry.

If you wish to be a loving and loved mother, don't worry.

If you want a good appetite, don't worry.

If you wish to sleep well, don't worry.

Worry is the curse of Englishwomen. Instead of taking the blessings that a kind Father provides, and being happy and content, all are passed over, and they worry for what they have not.

* "Don't cross the bridge until you come to it" is a maxim that it would be well for all to bear in mind.

Live to-day, and, so far as troubles and anxieties are concerned, leave them to the future. "As thy day, so shall thy strength be."

Care of the Mouth.

PERHAPS no part of the body is so often neglected as the mouth; especially is this noticeable in the case of children. A mother, who will religiously bathe her child and keep its body sweet and clean, will often fail to clean its mouth. A new-born infant should have its mouth washed after each feeding; a soft cloth wet in a weak solution of boracic acid should be used for this purpose. If this were always done, we should rarely find a case of infantile sore mouth.

After the teeth come and the mouth is large enough, a small, soft brush should be used; the teeth and mouth should be thoroughly cleaned at least twice daily.

In illness, where sordes and mucous accumulate rapidly, and where the tongue and lips are parched and stiff, attention is needed every hour; the mouth should be kept moist, and the same treatment carried out through the night as through the day. Boracic acid solution, listerine, lemon-juice, glycerine, and distilled water are all refreshing and soften the tissues; where the lips are chapped or fissures appear, a lubricant of cold cream or sterilised vaseline should be applied. Where the gums are spongy or soft, and bleed readily, a few drops of tincture of myrrh added to pure water will help to harden them. Small squares of old linen or soft gauze should be used instead of a brush where one is ill or weak. These should be immediately burned after use.

Every part of the mouth should be cleansed—behind the wisdom teeth, the roof of the mouth, and under the tongue; lemon-juice and water will remove the fur from a thickly coated tongue. Where the teeth are sensitive, the water used should be slightly warm.—*South Cal. Practitioner.*

Arsenic in the Marsh Case.

EDWIN J. BARTLETT says:—The result of the *post-mortem* findings in the famous MARSH case is given as follows: The stomach was the seat of extensive necrosis of the mucosa, with a granular deposit and pigment in the mucosa, in its glands and in the blood-vessels. The liver contained a deposit of pigment about the intralobular vessels and a few areas of parenchymatous and interstitial hepatitis. The kidneys exhibited hyperplasia of some of the MALPIGHIAN bodies and slight interstitial connective-tissue growth in the medullary portion. The blood-vessels in these regions were congested.

In the lungs the alveolar walls were somewhat thickened, the walls of the bronchi also thickened and infiltrated with lymphoid cells, with some desquamation of the lining cells, and some of the blood-vessels were filled with blood. The lower lobes were congested, and their vessels greatly engorged with blood, with small and slight hemorrhages into some of the air vesicles. The chemic analysis made for the identification of the arsenic resulted as follows: Stated in milligrams of arsenous oxid, from the stomach mechanically, 31; from the intestine mechanically, 32.8; from the stomach chemically, 48; from the intestines chemically, 14.85; from the liver, 28.14; from the kidneys, 5.86; from the brain and core, 4.05; from the urine, .875; thus making a total of 165.075 or 2.64 grains. This did not include the arsenic from the stomach and intestine themselves, nor that distributed in the blood, muscles, and other tissues. Samples of bismuth subnitrate and copper arsenite used in the treatment of the case, as well as a fountain-syringe, which it was thought might have been used to administer the arsenic by injections, were examined. The quantity of copper arsenite given was too small to be considered, and the bismuth contained less than $\frac{1}{100}$ gr. arsenic to each $\frac{1}{2}$ gr. The syringe contained only the quantity found in other fountain syringes of the same make.—*Phil. Med. Jour.*

Communications to Physician in Bastardy Case.

THE prosecuting witness and the accused in a bastardy case disagreed as to the date that the first intercourse took place, whether July 15, or August 3. Finally, the latter proposed that witness be examined by a competent physician, and if the examination disclosed that her pregnancy was of not more than four months' duration, he would regard himself as the author of her trouble and the father of her unborn illegitimate child, and would marry her. This offer was finally accepted, and a reputable physician was agreed on to make the examination. The examination was made, and, in the judgment of the examining physician, it disclosed that the pregnancy was more than six months advanced. To this result of the examination the physician was permitted to testify on the trial. But he was not allowed to testify that during the examination the complaining witness stated to him that the first connection with accused took place, as stated by the accused, on August 3. And this, the Court of Appeals of Kansas holds, case of *Clark vs. State*, was error. The evidence was excluded on the theory that it was a confidential communication, and therefore incompetent. But a statute making a physician or surgeon incompetent to testify concerning any communication made to him by his patient with reference to any physical disease, or any knowledge obtained by a personal examination of such patient, the court holds, cannot be construed to cover such facts as disclosed in this case. The court emphasises that the physician was not present as the physician of the complaining witness. She was not his patient. The examination was not made for the purpose of treating her for any physical, or supposed physical, disease. She agreed and submitted to the examination for the sole purpose of satisfying the accused as to whether he was the father of the child. She knew that the result of the examination was to be made known to her parents and to the accused before she submitted to it. Under such circumstances, the court holds, statements made by her to the physician during the examination, as to when the first connection took place, could not be regarded as confidential.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

Relative Value of Certain Articles of Diet in the Treatment of Disease.

THERE is probably scarcely a reader of the *Therapeutic Gazette* who has not been taught by the perusal of text-books, or by the lectures of his medical teachers, that in the treatment of BRIGHT'S disease certain articles of diet must be rigidly avoided, and among these that the various red meats or albuminous foods are to be put aside as largely as possible. Further than this, he has been instructed that if any meats are to be allowed the patient he is to use by preference white meat, such as the meat of chicken in preference to dark meats or red meats, such as mutton and beef.

Personally, we have never been able to see why a patient should be allowed to have small quantities of eggs, and white meat of chicken, and yet should be denied things such as roast beef, beefsteak and mutton; and recently a number of articles have appeared in continental journals, in which the question has been raised as to whether there is sufficient chemical and physiological difference between dark and white meat to justify us in permitting the use of one and forbidding the other. As a matter of fact, there are no chemical data which justify the prohibition of red meats. Such data as exist seem to be founded upon the supposition that dark meat contains a larger proportion of nitrogenous extractive than does white meat. But this is not borne out by the analysis of the various foods that we are discussing. On the contrary, chemical analysis shows that the difference between them, so far as extractive is concerned, is very slight.

Among the papers which we have mentioned we may quote that of OFFER and ROSENQUIST, which was published in the *Berliner Klinische Wochenschrift* in the latter part of 1899. This careful analytical paper is also quoted in the *Scottish Medical and Surgical Journal* and gives accurate tables, which show that there is no support apparently for the theoretical difference between white and red flesh, and these authors do not believe that we are justified in excluding red meat from the diet not only of cases of BRIGHT'S disease, but from the diet of those who are gouty—that is, provided that we are willing to permit these patients to eat meat at all. It is true that their views have been strongly combated by no less a person than SENATOR, who believes in the old-fashioned custom of excluding red meat from the diet of patients suffering from chronic kidney disease and gout. Whatever may be the ultimate result of this discussion, we believe that there is one point which is not to be overlooked, namely, that some of these patients at least may be allowed small quantities of red meat sufficiently frequently to prevent them from becoming entirely disgusted with white meat, and also in sufficient frequency to prevent them from becoming restive and uncontrollable upon the diet which is ordered.

Finally, it is not to be forgotten that it is by no means necessary to employ skimmed milk as a drink and nutriment for these patients. Unskimmed milk, which contains a larger quantity of fat, is therefore far more nutritious, and is infinitely better for such patients if they can digest it, and most of the patients who can digest skimmed milk can digest ordinary good milk which has not been skimmed.

—*Therapeutic Gazette.*

Iodine Used Hypodermically in the Treatment of Pulmonary Tuberculosis.

ALFRED CARRO CROFTAN declares that iodine is peculiarly a drug against which different subjects show marked idiosyncrasies. The chief symptoms observed are emaciation, usually accompanied by profuse sweats, some pyrexia, and an accelerated pulse; a peculiar psychical depression develops a form of hypochondriasis ("anxietas"). In the light of our theoretical beliefs, the administration of iodine should act curatively in pulmonary tuberculosis. Accurate dosage is essential to the success of the plan of treatment that is being advocated; too large doses will certainly aggravate, too small doses will be inefficient. Iodine injections were tried only on carefully selected cases. Twenty-seven cases have so far been treated with good results; nineteen were cases of incipient tuberculosis with only circumscribed areas of infection in one or the other of both apices. The results obtained so far are not conclusive, they are only suggestive, although they now appear to be sufficiently striking to warrant an optimistic view. The sooner the disease is recognized and treatment begun, the better the prognosis. Iodine was employed in the form of the ten-per-cent. preparation, and the injections were made into the subcutaneous tissues between the skin and the muscle, preferably in the gluteal and interscapular regions. Beginning with one drop of iodine, which, to give the necessary bulk for hypodermic administration, was dissolved in half a drachm or so of sterilized oil, the injections were gradually increased, one drop being added to the dose each day. The dosage was regulated by the symptoms: as soon as an improvement became apparent, the dose exhibited at the time was continued for a period of thirty to sixty days. If the quantity at first acting beneficially seemed to grow insufficient, the dose was again increased drop by drop; more than sixty minims a day have so far never been given. The writer believes pulmonary tuberculosis in its incipency, before it has become a mixed infection, to be one of the most easily curable of bacterial diseases.—*Journal Amer. Med. Assoc.*

For Neuralgia.

R	Ammonii chloridi	...	...	...	℥iil.
	Tinct. gelsemii	...	...	...	℥i.
	Ext. glycyrrhiz liq	...	...	...	℥ss.
	Aque chloroformi	...	...	ad.	℥vi.
M.	Sig. Dose ℥ss every four hours until the pain is relieved.				
R	Butyl-chloral hyd.	...	...	...	℥i.
	Ext. coae liq. (miscible)	...	...	...	℥vi.
	Glycerini	...	...	...	℥i.
	Tinct. aurantii	...	...	...	℥i.
	Aque dest. q. s.	...	...	ad.	℥vi.
M.	Sig. Dose ℥ss. every four hours.				
R	Antipyrin	...	...	...	℥i.
	Tinct. cascariæ	...	...	...	℥ss.
	Tinct. card. comp.	...	...	...	℥ss.
	Glycerini	...	...	ad.	℥vi.
	Aque	...	...	ad.	℥vi.
M.	Sig. Dose ℥ss. every four hours.— <i>Jour. Amer. Med. Assoc.</i>				

Liniment in Rheumatism.

R	Spts. camphoræ	...	...	...	℥ss.
	Tinct. opii	...	...	...	℥i.
	Spts. ammoniac	...	...	...	℥ss.
	Olei olive	...	...	...	℥i.
M.	Ft. emulsion. Sig. Apply locally four or five times daily.— <i>Med. News.</i>				

Liniment for Sprains.

R	Ol. terebinthinæ	...	...	...	℥i.
	Acid. acetic	...	...	...	℥i.
	Ol. lavenderæ	...	...	...	℥i.
	Vitell. ovi	...	...	...	℥i.
	Aque, q. s.	...	...	ad.	℥i.
M.	Sig. Apply two or three times daily.— <i>Exchange.</i>				

For Painful Menstruation.

R	Acetanilidi	...	...	...	gr. iii.
	Caffeinæ citratæ	...	...	...	gr. ss.
	Sodii bicarb	...	...	...	gr. iii.
M.	Sig. At one dose. To be repeated in one hour if necessary.				

Correspondence.

SUBORDINATION OF I.M.S. OFFICERS TO THE INDIAN CIVIL SERVICE IN MEDICAL AFFAIRS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I. M. S. in your issue of the 12th December 1900 has so clearly stated the reasons for the decline of the Indian Medical Service, that little more remains to be said; it will perhaps place the undesirableness of the I.M.S. as a career more pointedly before medical students if the system of medical work in districts is brought to their notice also.

An officer of the I. M. S., when placed in civil medical charge of a district, discovers for the first time that he is not considered by Government worthy of being treated with ordinary confidence and courtesy, such as he has hitherto considered his right; and he learns that he may not correspond, even on purely personal matters, with the Inspector-General of Civil Hospitals of his province, except through the Collector of his district. Why this extraordinary rule should exist, it is difficult to understand, except that it is desired to belittle one official of Government and exalt another at this expense; no useful purpose is served, and dissatisfaction results. In every possible way is the District Medical Officer reminded that he is a figure-head, and the Collector alone considered capable of forming a trustworthy opinion in purely medical matters, regarding which the Collector can have no opinion; he must be consulted, and his decision is practically final.

As an instance of the amusing length to which this practice is carried, I will cite an instance which occurred about two years ago.

The 1898 edition of the *British Pharmacopæia* had not then been issued to civil dispensaries, and the Inspector-General of Civil Hospitals, N.-W. P. and Oudh, directed Civil Surgeons to enquire from Chairmen of District Boards (Collectors and Deputy Commissioners) if they considered the issue necessary. What possible knowledge on this subject could the Chairmen possess? It was not a question for the provision of extra funds, as the purchases were made from funds already allotted for dispensary use.

It is ruled that the District Magistrate alone is to judge if the stomach and viscera in cases of poisoning are to be sent to the Chemical Examiner; in practice the Magistrate probably does not hear of the case till after the *post-mortem* has been made and the Civil Surgeon has kept or destroyed the viscera, as he considers necessary.

Cholera appears in the district, and again the Civil Surgeon may not depute a vaccinator to distribute medicine without previously obtaining the consent of the Collector. The above are examples of how work is hampered, for no conceivable reason except to preserve the *precious* *izzat* of the District Officer. The last-mentioned rule works disastrously for the people, as three, four or more days may elapse before a reply is received from the District Officer, who is often out shooting in some part of the district difficult of access, and the disease makes headway unchecked. Here, possibly, is a reason why no direct correspondence with the Inspector-General may take place; were this not prevented, irregularities due to the senseless rules enforced would speedily be brought to notice.

It is pretty generally recognised by those already serving Government that the interests of the Covenanted Civil Service are of paramount importance, and that all persons and things are to be subordinated to that object; but this is not so widely known in the schools at home, or recruits would not be forthcoming in the numbers now available.

Allowances are cut down in every other service, or it would not be possible to pay the Covenanted Civil Service as highly as it is now paid.

Years of scarcity, war and epidemic disease have impoverished Government, and the shears have been freely employed where the I. M. S. and other services are concerned, only the I. C. S. remains untouched.

There is a marked want of courtesy in the manner in which transfers are effected; no warning is given, and the first that one knows of one's transfer is the notification in the gazette. This entails unnecessary unrest, and one can never live in comfort lest a transfer should cause additional loss for want of time to dispose of property, etc.

There is little hope of any improvement in the prospects of the I. M. S., as apparently no desire exists on the part of Government to secure the best men for the service. So far as the services are concerned, Government and the Civil Service are synonymous terms, and many civilians would be pleased if they had no European Civil Surgeon; they would then be kings indeed when they could, without risk of contradiction, formulate their opinions on all possible questions, sanitary and medical.

The interests of all and sundry European and Native officials and non-officials are subordinated to the civilian in India, and men of education and talent, who can get a living out of India, should pause before embarking on an Indian career. The Civil Service have got a grip on India and its few remaining plumbs, and nothing short of a catastrophe will shake that grip. They are unpopular with the European services, as it is felt that other services are starved in their interests, and redress for injustice, when a civilian is the offender, is impracticable. Native officials are discontented, but their case is hopeless; they must submit; this is their country, and they must live in it, whether fairly or unfairly treated by the civilian. With a European, who may possibly be a candidate for the I. M. S., it is different; he can make a living in more desirable surroundings than he can in India.

The *Indian Medical Record* has fought hard for the I. M. S. to be thrown open to the graduates of Indian colleges, but with all its well-meant efforts it has not done half as much towards that end as has the undesirable civilian, so commonly met with now-a-days in Indian districts.

I may appear to have wandered somewhat from my subject, but this is not actually so; former writers have given some reasons why the I. M. S. is becoming an undesirable career. I have touched on matters outside their letters, as I consider the greatest evil that an Englishman has to endure in an Indian career is his undesirable relation to the covenanted Indian civilian; their privileged communications on any and every subject places other officials at a disadvantage nothing can remove; honest work, talent, loyal service, honesty, all melt before the privileged communication of a covenanted civilian.

This being so, why select a career in the I. M. S.

Yours, &c.,
ANOTHER I. M. S.

A WORD ABOUT THE RECENT OUTBREAK OF MALARIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—As a sequel to the heavy rains of the monsoon of 1900, which amounted to more than double the usual average rainfall in several parts of India, there has occurred a general malarial poisoning which, strange to say, has not yet disappeared, even though we are near mid-winter. The period succeeding the monsoon is usually characterised by an outbreak of malaria, but the present extraordinary severity of the disease is more marked when compared to a similar outbreak which followed the drought of 1877. There is little doubt the recent epidemic of malaria has outlived its predecessor; this may be due to an excessive saturation of the soil and consequent

breeding ground for the mosquitoes concerned in the disease. Unlike relapsing fever, it has not spared the well-to-do classes, and the total mortality has swelled considerably, amounting to 213·3 per 1,000 in some districts. One thing remarkable about the present outbreak of malarial fevers is that it has shown certain clinical peculiarities, which it is the object of this correspondence to get elucidated in your columns as far as possible.

Over and above the symptoms ordinarily met with in malarial fevers, one often finds the following:—

(1) There are no chills or rigors, and the fever does not correspond to the usual varieties of malarial fever, but it assumes the continued type.

(2) Ulcerative and gangrenous stomatitis with inflammation and bleeding from the gums, not as an independent affection, but developed during the course of the disease, are observed in several patients, even of the upper classes, and often prove fatal. The whole cheek becomes gangrenous, several of the teeth fall out, and this occurs chiefly among children.

(3) There are excessive nausea and vomiting, often without any appreciable enlargement of the liver, and jaundice comes on without any apparent cause. The icterus has been known to occur even among cases uncomplicated with nausea or vomiting, and is of the obstructive form with clayey stools; no gall-stones or worms have been detected in the stools, and the condition appears to be due to an inflammatory condition of the bile-duct.

(4) Epistaxis has been known to occur in several instances.

(5) The mental condition is depraved: there is melancholia with homicidal tendencies in a few.

(6) Parotid bubo has been developed during the progress of the case in several patients; it has been known to occur even among patients who had no ulceration of the mouth. The bubo is developed during the second or third week of the fever, there being no trace of it during the first week, and usually ends in suppuration and with a favourable prognosis.

(7) Some of the cases are of the *cerebro-spinal type*. The following is a case in point:—

S. J., a boy aged six years, was seen on the 19th of December 1900, and presented the following symptoms at the time of visit:—

Temperature 104°; pulse 120, of small volume, compressible; a furred and foul tongue; the neck thrown back as in opisthotonus, with inability to flex it or straighten it; an erect condition of the penis; pain in the back chiefly complained of on touching the spine; stupor; eyes half closed; pupils slightly contracted; inability to answer questions; urine passed freely, high-colored; sp. gr. 1017; no albumen; a clonic spasm of the extremities occurred from time to time; constipation; a herpiform eruption was developed later on, and was confined to the head, neck and back, partly seen on the extremities; ended in recovery after a fortnight. Total duration of illness 23 days, excluding the period of convalescence.

*From the variety of clinical phenomena above noted, it is clear that it is not malaria, pure and simple, that we have to deal with; but that the atmosphere is loaded with the germs of other diseases which complicate malaria and modify its usual symptoms.

By way of treatment, quinine, purgatives, a nourishing diet, plenty of fresh air, and scrupulous cleanliness so as to avoid all abominable cesspools likely to harbour the mischievous mosquito, appear to be the only measures possible under the circumstances. While explaining the exact causes of the symptoms above noted, can you suggest anything by way of treatment?

Yours, &c.,
"LANCET."

8th January, 1901.

COL. HENDLEY AND THE CHIEF MEDICAL OFFICER, E. B. S. RAILWAY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to a paragraph attacking and abusing the Chief Medical Officer, E. B. S. Ry., for resenting Colonel HENDLEY's unnecessary interference, I beg permission to make a few remarks. Colonel HENDLEY spent all his service in N.-W. P. and Rajputana, and had no knowledge of, or experience in, Bengal. He held a fat appointment in Jaipur, viz., the Residency Surgeoncy, for many years. Residency Surgeoncies do not offer much field for gaining experience and improving professional knowledge. A Residency Surgeon spends most of his time in sports and amusements with the Native Princes and their residents, and thus act, more or less, as *mosahebs* and companions. That one of such men should be brought and placed at the head of a department in a large and important province like Bengal passes comprehension—more especially when there were senior and more experienced local men. Dr. HENDLEY is a lucky man, because he held a fat appointment for many years and then tumbles upon another fat appointment, from which he will retire with extra pension. But that does not give him any right or title to get an important prize appointment like the Inspector-Generalship of Civil Hospitals, Bengal. He had no experience of Bengal, and has, therefore, to trust to his Eurasian Head Assistant. I am afraid this arrangement of allowing the Eurasian (I beg Dr. WALLACE's pardon) Imperial Anglo-Indian Head Clerk to manage business obtains in other Provinces and Local Administrations, and needs looking after by Lord CURZON, who has cleared the Augean Stables of the Secretariats. That a common Eurasian clerk should be allowed to rule the Medical Department and to order about Civil and Military Medical Officers, Civil and Military Assistants, and the poor Civil Hospital Assistants, is a great scandal that requires looking after. A common clerk, exercising such powers, must be exposed to great temptations.

Now the Civil Medical Officer of the E. B. S. Railway is not the only man who complains of Dr. HENDLEY's unnecessary interference, but many District Civil Surgeons make the same complaint. Why should Government pitchfork such square men in round holes?

Dr. HENDLEY is not satisfied with unnecessary interference in his own department, but must rank as SAUL among the prophets. We see in the newspapers that he is to read a paper at the Church Conference on the morals of his young countrymen coming out to India. It is very good of him to be so solicitous of the morals of his young compatriots and GRIFFITHS—but a little more charity to the Indian people would be more consistent with his profession of the Christian faith. Many pious Europeans hate Indians and call them niggers; but they forget that CHRIST himself was an Asiatic and a coloured man.

Yours, &c.,
COLONEL, I. M. S.

(We consider Colonel Hendley thoroughly justified in his action. Dr. O. C. Bose is physically unfit for his post as O. M. O. Colonel Hendley has an able personal assistant in Mr. Price, but Mr. Price simply obeys orders, and he cannot be credited or discredited by what Colonel Hendley sees fit to do.—ED., I. M. R.)

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Government Medical Gazettes.

PUNJAB.

Asst. Surgn. Parmanand, doing gen. duty at Mooltan, was apptd. as a tempy. measure to the ch. of the Rewari Dispy., Gurgaon Dist., from the 3rd Nov. 1900, during the absence of Asst. Surgn. Sodhi Karm Singh to attend the Septennial Prof. Exam. of Asst. Surgns. at Lahore.

On return from Lahore, Asst. Surgn. Sodhi Karm Singh relieved Asst. Surgn. Parmanand of the ch. of the Rewari Dispy., Gurgaon Dist., on the 8th Nov. 1900.

Hosp. Asst. Ghulam Haidar, doing gen. duty at Jhelum held ch. of the Gujrat Civil Hosp. during the absence of Asst. Surgn. Harbhagwan Das to attend the Septennial Prof. Exam. of Asst. Surgns. at Lahore.

On return of Asst. Surgn. Harbhagwan Das from Lahore, 1st Class Hosp. Asst. Ghulam Haidar reverted to gen. duty at Jhelum on the 12th Nov. 1900.

Hosp. Asst. Mir Kutab Ali, Bahadurgarh Dispy., Rohtak Dist. was placed in visiting ch. of the Sampla Dispy. in the same dist., in addition to his own duties, from the 22nd May 1900 to the 3rd Sep. 1900, during the absence on deputation of the permanent incumbent, Hosp. Asst. Tufail Muhammed, on famine duty in the dist.

The following Hosp. Assts. of the second class having passed the Septennial Prof. Exam. of Hosp. Assts. held on the 15th Oct. 1900 are promoted to the first class:—

Munshi Ram; Lok Nath; Ghulam Kadir.

The following Hosp. Assts. of the third class having passed the Septennial Prof. Exam. of Hosp. Assts. held on the 15th Oct. 1900 are promoted to the second class from that date:—

Ghulam Muhammed; Munshi Ram.

On relinquishing med. ch. of the Poor House, Hissar, 2nd Class Hosp. Asst. Gurmukh Rai was apptd. to the ch. of the Western Jumna Canal Dispy., Ottu, in the same dist. on the 1st Oct. 1900, relieving 1st Class Hosp. Asst. Mussaddi Mal, who was placed on gen. duty at Hissar from the 5th Oct. 1900.

N.-W. P. OUDH.

Capt. E. B. Steel, R.A.M.C., to the civil med. ch. of Roorkhee, in addn. to his mil. duties, from the 25th Nov. 1900, vice Lieut.-Col. D. O'Sullivan, R.A.M.C.

Lieut.-Col. Emerson, I.M.S., Civil Surgn., on return from furlough, to the Sitapur dist.

Lieut.-Col. A. R. W. Sedgfield, I.M.S., Offg. Civil Surgn., on return from leave, to Budaun.

The services of Lieut.-Col. A. R. W. Sedgfield, I.M.S., Offg. Civil Surgn., Budaun, are replaced at the disposal of the Govt. of India, Home Dept., with effect from the date on which he relinquishes ch. of his present duties.

Civil Asst. Surgn. Sarat Chandra Chakravarti, on being relieved of the off. ch. of the Sadr Dispy., Meerut, to reserve duty at the stn.

Offl. Asst. Surgn. Baij Nath Vias, on reserve duty at Lucknow, to the off. ch. of the Sadr Dispy., Fatehpur, as a tempy. measure.

Civil Asst. Surgn. Nripendra Chandra Mukerji, in ch. of Fatehpur Sadr Dispy., on return from priv. leave, to the ch. of the Sadr Dispy., Partabgarh.

Civil Asst. Surgn. Suriya Kumar Mukerji, from the ch. of the Sadr Dispy., Partabgarh, to that of the Sadr Dispy., Rae Bareilly.

Civil Asst. Surgn. Hari Gopal Chatterji, from the ch. of the Sadr Dispy., Rae Bareilly, to that of the Sadr Dispy., Fatehpur.

Civil Asst. Surgn. Nobin Chandra Chakravarti, on return from deputation to Dholpur, to be Lecturer on Practice of Medicine, Med. School, and in ch. of Thomason Hosp., Agra.

Civil Asst. Surgn. Rashid-ud-din, on being relieved of the off. ch. of the Balrampur Hosp., Lucknow, to the ch. of the Hussainabad Dispy., Lucknow.

The undermentioned Civil Hosp. Assts. of the Provn. Est. having passed their septennial exam. on the 15th Oct. 1900, are promoted to the next higher grade, from the dates mentioned against the name of each official:—

Basant Rae, Gulzari Lal, Kirpa Krishn, Tara Datt, Latif-ullah, 15th Oct. 1900; Pir Muhammad, Basir Ali, Jewan Sahai, 1st May 1900; Baijnath, 29th Sept. 1900.

Lieut.-Col. E. S. Brander, I.M.S., Civil Surgn., who has been recalled from leave, to the Farrukhabad dist.

Major C. Macdaggart, I.M.S. Offg. Insp.-Gen. of Prisons, N.-W. P. and Oudh, on being relieved, to be Supdt., Central Prison, Lucknow.

BURMA.

Hosp. Asst. Mon Mohun Datta relinquished ch. at the Police Hosp., Myitkyina, on the 11th Nov. 1900 and assumed ch. of escort duties at Myitkyina, on the 12th Nov. 1900.

Hosp. Asst. Mon Mohun Datta relinquished ch. of escort duties at Myitkyina on the 25th Nov. 1900, and assumed ch. at the Police Hosp., Myitkyina, on the 26th Nov. 1900.

Hosp. Asst. Mon Mohun Datta relinquished ch. at the Police Hosp., Myitkyina, on the 1st Dec. 1900, and assumed ch. of his duties with the Sima escort on the 2nd Dec. 1900.

Hosp. Asst. S. Muniratna Pillay relinquished ch. at the Police Hosp., Magwe, on the 23rd Nov. 1900, and assumed ch. at the Civil Dispy., Yenangyaung, Magwe dist., on the 27th Nov. 1900.

Hosp. Asst. Ibrahim Hussain, on transfer to the Chin Hills relinquished ch. at the Civil Hosp., Yenangyaung, Magwe dist., on the 27th Nov. 1900.

Hosp. Asst. Naung Tun E. assumed ch. of additional duties at the Police Hosp., Magwe, on the 23rd Nov. 1900.

Hosp. Asst. Salik Ram made over, and Hosp. Asst. G. Francis assumed, ch. of the Civil Hosp., Mingin, Upper Chinwind dist., on the 22nd Nov. 1900.

Hosp. Asst. Salik Ram assumed ch. at the Out-post Hosp., Kalewa, Upper Chinwind dist., on the 27th Nov. 1900.

Hosp. Asst. Maung Po Sain, on return from leave, assumed ch. at the Civil Hosp., Panagbyin, Upper Chinwind dist., on the 21st Nov. 1900.

Hosp. Asst. C. Abdulla relinquished ch. at the Civil Hosp., Panagbyin, Upper Chinwind dist., on the 21st Nov. 1900, and assumed ch. at the Police Hosp., Kindat, Upper Chinwind dist., on the 26th Nov. 1900.

ORIGINAL ARTICLES.

A CLINICAL LECTURE ON SYPHILITIC DISEASES OF THE TONGUE.*

BY CHRISTOPHER HEATH, F.R.C.S.,

Consulting Surgeon to University College Hospital, London.

GENTLEMEN,—We have had lately in the ward a remarkable case of gumma of the tongue, and I thought it would afford a good opportunity to say a few words to you concerning syphilitic diseases of the tongue, considering that cases of this description form a fair proportion of the affections you will have to treat in your practices.

• PRIMARY SYPHILIS OF THE TONGUE.

With regard to primary syphilitic disease or chancre of the tongue, I have first to say that it is a very rare thing. Personally, I do not remember to have seen an actual chancre of the tongue, but I can show you here, in a German book containing good illustrations, a picture of a tongue with a chancre upon it. A chancre of the tongue, like a chancre of the lip or chancre of the finger, does not present that remarkable hardness which a chancre on the genital organs does. It is very important to remember that, and when you see a patient with a sore upon the lip (and sores on the lip are more common than on the tongue), and notice that there is no induration of the sore, but that there has been very early and rapid enlargement of the lymphatic glands beneath the jaw, you may conclude, especially if the patient is a young person, that in all probability it is a chancre; the same thing applies to the tongue.

The way in which the tongue may be inoculated with the syphilitic virus may vary, and one can imagine abominable practices occurring in certain well-known cities, but I hope not in London, whereby actual inoculation of the tongue may take place. You must remember, however, that a person may get a chancre of the tongue or of the lip perfectly innocently, because there is no doubt, in the present day at any rate, that mucous tubercles in the mouth can produce a primary chancre in the mouth of another person. I wish to put this point strongly, because up to within recent times it has been denied; but no leading syphilographer now-a-days questions that syphilis is communicable by mucous tubercles. Since, then, these mucous tubercles are common in secondary syphilis, considering the careless habits people have of using cups and spoons and pipes after one another, it is not wonderful that from time to time a primary chancre occurs in the tongue. Primary chancre of the tongue must of course be treated like chancre elsewhere, that is to say with mercury.

SECONDARY AFFECTIONS OF THE TONGUE.

Referring to the evidence of constitutional syphilis, we happen to have here to-day a patient, who, as you see, has a well-marked secondary eruption. The man has evidently got secondary syphilis, and now, on putting out his tongue, you notice that he has a fissured tongue, and I have no doubt that at some period the site of these fissures was marked by mucous tubercles. I say so,

because I find that on turning his lip out a little at the corner, it will be seen that the lip and the tongue have mutually inoculated one another. It is common to find further back in the cheek patches of mucous tubercles, which are distinctly inoculated from the tongue to the cheek. These mucous tubercles are just the same "mucous plaques" as we call them that you find so commonly about the female genitals. We do not so often see mucous tubercles about the male genital organs, because in the male the skin is kept dry; but in the female, where there is moisture and probably some vaginal discharge, we very commonly get on the moist skin about the vulva and the anus mucous tubercles, of which I can show you a very good representation in this book.

Here, in this man, I now show you there is exactly the same condition of things about the mouth, that is to say, one moist surface with another moist surface constantly touching it, in a patient under the influence of the syphilitic poison, resulting in the development of mucous tubercles.

These mucous tubercles may, moreover, occur in children as the result of congenital syphilis—in children who exhibit other evidence of congenital syphilis, such as coppery patches about the buttocks and mucous tubercles about the anus. This is very important, because a child with mucous tubercles about the mouth may so easily infect a woman whose nipple it sucks, though it cannot infect its own mother, the mother having already syphilis in her system; this is known as "COLLES'S LAW."

Another symptom of constitutional syphilis about the tongue and mouth is the development of inflammation superficial in its character. With it we get very commonly a shedding of the superficial layers of the mucous membrane of the tongue, including the filiform papillae. I believe that condition is much more common than is supposed, but it is not often seen, for what we more commonly meet with is the condition seen when the patient comes complaining of a sore tongue, with a history of having put up with the soreness for some weeks. Here the appearance has become altered, and more commonly the bald patch is found which is so significant of secondary syphilis of the mucous membrane of the tongue and mouth. The patient may have gone through the first stage without its having been recognised, and as a result of that shedding of the epithelium, there is a certain amount of cicatricial tissue causing smoothness of the surface of the tongue, recognised as the characteristic "bald patch."

SYPHILITIC ULCERATION OF THE TONGUE.

We may have another condition following that—namely, inflammation going on to ulceration, and that may show itself in various ways. It generally is a multiple ulceration, making grooves in the side of the tongue, not affecting very much the dorsum, but involving fairly deeply the sides and tip of the organ. I send round an illustration; you will see fissuring of the tongue and some hypertrophy of its tissue. Here is a better illustration, which shows exceedingly well the appearance after the ulceration has healed, and we have there a certain amount of thickening; you will notice also the sulci or grooves which have been cut

* Delivered at the University College Hospital, and sent to the *Record* for publication.

into the tongue by the process of ulceration. That process may of course extend a good deal into the tissue of the tongue, and you occasionally find, as is shown here, a true glossitis or inflammation of the tongue due to the syphilitic poison. In the case of the woman whose tongue I lately removed, you may remember that I called attention more than once to the fact that behind the gumma there was an ulcerated surface due to syphilis, so that we had there the late secondary and the tertiary manifestations of the disease together. You may even have the tongue split down the middle by ulceration; it is rare, but it does occur now and again.

We have, then, this ulceration, and we may have, either with or after the ulceration, a very considerable amount of chronic thickening of the tongue—a thickening of perhaps only one side of the tongue, and of a very chronic character. This thickening of the tongue is apt to alarm a patient, who immediately begins to think that he is suffering from malignant disease. I have no plate here which shows it, but you can understand that where there is chronic inflammation there may be chronic thickening, and that one side of the tongue may feel hard and lose a good deal of its ordinary characteristics.

The treatment for all forms of secondary syphilis of the tongue I am quite sure is the same, and that treatment is the administration of mercury. There is no use whatsoever in attempting to treat secondary syphilis of the tongue with potassium iodide; you must give the patient mercury, and you must push the mercury not merely constitutionally, but locally, if you wish to make a complete cure. I am in the habit of using a mercurial mouth-wash, beginning with a strength of gr. $\frac{1}{4}$ of perchloride of mercury to the ounce, that is to say, about 1 in 2000, and this strength I gradually increase. My usual prescription is perchloride of mercury gr. $\frac{1}{4}$, with 2 drachms of honey made up to an ounce of water. I tell the patient to take a mouthful of this, and to have his watch out and see that he holds the wash in his mouth for five minutes by the watch, as five minutes is a longer time than people think. It is quite useless to merely tell a patient to use a mouth-wash; then he simply gargles a little and spits the lotion out, and that is of no use at all. The tongue must be "pickled," and if the patient takes his watch out and breathes through his nose, and holds the lotion in his mouth for five minutes two or three times a day, it is astonishing how these tongues improve. Mercury must be given to the patient at the same time internally, and there are many ways of giving it. I have myself come to the conclusion that there is no more satisfactory way of giving mercury than by inunction; that is to say, by rubbing it in over night when the patient is going to bed. The patient should rub the mercury into the inner part of the thighs or the front of the belly, beginning with half a drachm of the blue ointment and going on to a drachm. This rubbing may be continued for many nights together without producing irritation, but if that occurs, then the site of the rubbing should be shifted to the lower part of the abdomen. One great advantage of prescribing mercury in this manner is that it gets into the system very gradually, and that the patient is not affected in the month. The patient bears the drug better, and it is

a more satisfactory plan than giving mercury by the mouth. You must warn the patient that, though he may have a daily warm bath to cleanse himself, he should not use soap except once a week, when the ointment may be washed away. I generally recommend a man to wear pyjamas, and to wear the same pyjamas every night for a fortnight or three weeks, in that way scouring the entrance of mercury into the system without any inconvenience.

Most of you have heard that at Aix la Chapelle there is a system of treating syphilis which is certainly extremely valuable. That system is nothing more nor less than what I have been describing to you. The people at Aix la Chapelle make a great fuss about the value of the sulphur water and the sulphur baths in use there; these are certainly very pleasant, but they have no real bearing on the cure; it is the steady daily rubbing in of the mercury by the attendants which produces such marked effects. The course at Aix la Chapelle is for six weeks, and it is easy to get a patient here in his own house to rub for six weeks, and then perhaps he may leave it off for a month or so, and then resume for a time. With reasonable precautions against getting wet and taking cold, I have found no difficulty in this treatment being carried out.

It is very important that you should never salivate a patient; that is a thing of the past; to avoid salivation, it is the custom at Aix la Chapelle to use an alum mouth-wash. Every patient there carries about with him this mouth-wash, and he is continually rinsing out his mouth. I have no doubt that if a patient be treated in this systematic manner the most marked curative effects can be secured.

LATE SECONDARY OR EARLY TERTIARY ?

Now let me draw your attention to the fact that there are cases of syphilitic tongue on the borderland between the secondary and tertiary stages; I mean cases which are not actually gummatous, but which are instances of late ulceration, and these cases are satisfactorily treated in the way I have indicated. I have a drawing here, made as long ago as 1870, of the tongue of a man who was brought to me because it was thought that he had epithelioma. I did not think it was epithelioma, and on looking over his body found on his thigh a well-marked eruption which no one could possibly take for anything but syphilis. Under the influence of mercury that man's tongue got perfectly well, and I may add that there is no doubt that tongues have been removed before now for conditions which might have been cured by mercurial treatment. When I hear of a patient remaining well for years after removal of the tongue for epithelioma, I have my doubts as to the correctness of the diagnosis, and it is natural to do so in the case of patients surviving for many years such a deadly disease as epithelioma of the tongue.

TERTIARY SYPHILIS OF THE TONGUE.

We will now consider tertiary syphilis of the tongue, of which we have such a remarkable example in the case of the woman who came into the hospital early in October. She is a middle-aged woman, who had got what no one could doubt was a well-marked ulcerated

gumma of the tongue. She happened to come in at the time of the October examinations at the colleges, and I sent her down as one of the cases. I believe there was only one opinion expressed, and that was that it was a case of well-marked gumma of the tongue. This gumma, you will remember, was in the ulcerated condition; and you must bear in mind that before it was ulcerated there was a hard mass to be noticed, involving nearly the whole of the right side of the tongue, but in her case there was something more, for all through the tongue there were little nodules of syphilitic deposit. It was one of those cases of multiple gummata which are not commonly seen, the gummata spreading through the substance of the tongue. I ought to add that she had an enlarged gland under the chin. I thought myself that the state of irritation of her mouth was sufficient to account for that enlargement, and I did not at first consider that there was anything of a malignant character about the condition. I said at the time—incorrectly, however, as it turned out afterwards—that we should cure the case by full doses of potassium iodide and a mercurial mouth-wash. We began with moderate doses of potassium iodide, giving it combined with ammonia and bark. She was put upon 10-grain doses, and seemed to be improving, and then we increased the dose to 20 and finally to 30 gr.; but we noticed that she did not further improve. In consequence of a tendency to salivation, I was obliged to stop the mercurial mouth-wash, and give her a lotion containing myrrh. What I generally order is just sufficient tincture of myrrh poured into warm water to make it milky. After some little time I felt quite sure that if there was not an epitheliomatous condition present that there ought to be, because the patient did not improve. It was clear that it would be better for her to get rid of the tongue than to allow the organ to continue in that condition, and the patient herself was only too glad to consent. A fortnight ago, therefore, I took away the whole tongue, and you may remember that I had to put my clamp-forceps behind the circumvallate papillæ just in front of the epiglottis. On taking away this large tongue, it showed to the naked eye the pasty appearance in the red muscle which is so characteristic of gumma, and there were also present the small gummata scattered through the tongue which I have mentioned. I particularly said to Mr. CURTIS, the surgical registrar, that I hoped he would make a careful examination, because I was not at all satisfied that it was solely a gummatous condition; and eventually, quite at the back of the tongue, Mr. CURTIS found a very distinct mass of epithelioma, a small amount certainly, but distinctly epitheliomatous. A specimen has been placed under the microscope for you to see to-day, and you can recognise there what no one can doubt to be epithelioma.

It is clear, then, that this patient, having gone through a prolonged course of ulceration of the tongue, eventually developed epithelioma, and I am glad therefore that I have removed the entire tongue. I hope I have removed the whole of the disease; but though I went close to the epiglottis, I am afraid she will have further trouble in connection with the glands in the chin. You will remember that I very carefully scraped them out, and cleaned up the part generally; and we must hope for the best.

In connection with these cases of gumma of the tongue, which go on for a long time and develop epithelioma, I will quote to you a saying of Mr. JONATHAN HUTCHINSON: "If you irritate a part sufficiently long, you may grow epithelioma." As an example of this, take the irritation of a pipe continually affecting a lip, and ending in the development of epithelioma of the part, and this is a well-known fact clinically, for we hardly ever meet with epithelioma of the lip except in males who smoke. Given, therefore, any prolonged irritation, you have the probability that epithelioma will grow, and that is exactly what has happened in the case of this woman. It is this sort of case which is brought to you with a history that the patient has had a sore tongue, and has been under judicious medical care, with the result that, though the tongue has improved up to a certain point under potassium iodide, yet it has never got well. These cases of a double kind, if one may so call them, which have epithelioma grafted on to a gumma, may, and do, for a short time improve under the influence of potassium iodide, for no doubt the ordinary small-celled inflammatory exudation becomes absorbed, and things become improved for a time; but potassium iodide has no effect whatsoever on epithelioma, and the tumour goes on growing, eventually resulting in some operation having to be done if the patient's life is to be prolonged.

The treatment of a gummatous condition I have already indicated, full doses of potassium iodide with the addition, as a rule, of a mercurial mouth-wash. It is astonishing what a quantity of potassium iodide some of these patients will bear, taking sometimes 30 to 40 gr. three times a day, with the result that eventually a thorough healing may occur.

LEUKOPLAKIA.

There is one other thing I should like to say a few words about, and that is a disease of the tongue with which you are all familiar, which we call leukoplakia, and I put it last, because it is by no means always of syphilitic origin. Leukoplakia may occur entirely apart from syphilis, common cause being tobacco; but if a patient is not only the subject of syphilis, but also smokes tobacco, he is very likely to have a much worse tongue than if he were free from syphilis. Although I do not say that every case of leukoplakia is complicated with syphilis, as of course that would be incorrect, still I do say that many cases arise in conjunction with syphilis, the result partly of syphilis and partly of local irritation; and further, I believe that you must always have that local irritation present in order to produce leukoplakia.

WARTS.

In connection with the subject of my lecture, there is another thing I must mention, and that is the condition known as warts. I show you here a man with tertiary syphilis of the palate and throat, and the point I want you to note is that at the base of the tongue, quite at the back of the organ, there is a somewhat warty condition. That is not a very common thing, but the condition is one of the evidences of syphilis, and this case affords a good example of it. He is being treated for tertiary syphilis, and you will notice

that his face is scarred and that his palate is perforated. I am treating the warty portion of the tongue with nitrate of silver, and, if necessary, I shall try chromic acid, 10 grs. to the ounce. Another useful application is cyanide of mercury, 15 grs. to the ounce, brushed over the affected portion of the tongue. This often does wonders for this sort of thickening, and also for old chronic ulceration. It is necessary, of course, to be careful that the patient does not swallow any of the application.

I need hardly remind you that you must not confuse the syphilitic warts at the back of the tongue with the condition that sometimes is seen on a perfectly healthy tongue—I refer to the slight hypertrophy that may occur sometimes of one of the papillæ of the tongue. I lately saw a case of wart of this kind in a gentleman who had not the slightest trace of syphilis about him; it was merely a slight hypertrophy of one of the papillæ of the tongue, and the best treatment is to touch it with the acid nitrate of mercury.

NOTE ON THE MAL-TREATMENT OF MALARIAL FEVERS AND ITS CONSEQUENCES.

By BHODUN MOHUN SIRCAR, L.M.S.,
Calcutta.

THIS formidable scourge—malarial fever—which has caused the ruin of so many mofussil towns and villages of Bengal and other provinces, first made its appearance in Jessore some three quarters of a century ago, making a sad havoc in that flourishing town. Within our recollection, it next appeared in the districts of Burdwan, Hughly, Nuddea and the 24-Pergunnas in the latter end of the fifties, devastating most of their prospering towns and villages, many of which were once renowned as sanitariums in Bengal. Later on it spread to Rungpore, Rajshahi, Dinajpur and other districts.

Various theories have been advanced from time to time as to the causation of these fevers. Various means have also been adopted to improve the sanitary condition of these fever-stricken districts in the way of clearing the jungles, improving the streets and drains, providing tanks, wells and filtered waters, excavating canals in lieu of their natural watercourses, which had been obstructed by railway and other embankments, and deepening drainage channels silted up in course of time. But it is a matter of great regret that nothing, or very little, has been done, either by Government or the profession, in the way of providing or suggesting proper remedies to check the progress of the fever in its chronic stage, which is so complicated in its nature and fatal in its consequences.

Quinine is the only medicine which has been found useful in checking the fever, and is accordingly used very largely all over the country, both by the profession and the people, in the acute or primary stage of the disease, to check the fever and prevent its recurrence. But in the rural districts no regular or systematic treatment has been enjoined or followed in its chronic or secondary stage to check its progress and prevent the relapses which are so frequent in these fevers. This is due partly to the want of proper medical aid in villages, and partly to the

impoverished condition of the people, who can ill-afford to avail themselves of good medical treatment. This gave rise to the preparation of patent medicines, which could conveniently be used for days together without any doctor's advice. With few exceptions, quinine was made the staple ingredient of these medicines, combined with purgatives, iron and vegetable tonics. The large doses of quinine contained in them promptly checked the fever, and the patients being satisfied with the efficacy and cheapness of the medicines, largely availed of them. Thus, within a few years, various kinds of patent mixtures, pills and powders, supposed to have anti-malarial properties, came into existence and found a ready and extensive sale in the market all over the country.

In this way the injurious practice of mixing quinine, Epsom salt, iron and other ingredients all in one mixture, and allowing the same to be used in all stages of malarial fevers, both acute and chronic, has become very common, and is much to be deprecated. The difference in the physiological actions of these different drugs and their respective effects on the system in the different stages of the disease are altogether overlooked. Their indiscriminate use has thus given rise to serious consequences. In the acute stage of fever, with high temperature, iron acts as a poison—it suppresses the secretions, constipates the bowels, and brings on congestion of the liver, spleen, kidneys and other organs. But at the same time iron is one of the best tonics that we have in improving the blood and renovating the system when administered in the chronic stage, when there is little or no fever. In treating a case of fever, surely no qualified physician will prescribe iron in its hot stage, with thirst, scanty, high-coloured urine, constipation, foul tongue and the more or less irritated condition of other organs, nor until the fever has left and the patient has become convalescent. But in using these patent medicines, the patients are obliged to take iron along with quinine and its other ingredients from the beginning of the fever, irrespective of its injurious action in the hot stage or until it has left. On account of its repeated use in that condition in every relapse, which is so frequent, the liver and spleen become congested and enlarged, other organs become deranged, the condition of the patient becomes weak and anæmic, and anasarca, cachexia and other fatal symptoms gradually supervene, terminating in death. In the same way Epsom salt, or any other similar purgative which may do good in the first stage of the fever by clearing the bowels, but its unavoidable continuance for days together till the bottle is finished, gradually brings on diarrhoea, dysentery and other complications.

This empiric and heterogeneous combination of febrifuges, purgatives, hæmatics, bitter tonics, &c., cannot therefore but be wrong in principle, injurious in action, and fatal in its consequences. My long experience of malarial fevers in Bengal, extending over a period of nearly forty years, has convinced me of the undeniable fact that much of the sufferings of the victims of malaria in villages is largely, if not wholly, due to the continued and indiscriminate use of these patent medicines, which in a manner augment and perpetuate the evils. Those who suffer most in this way are generally

the poor and ignorant villagers living in rural districts. In their eagerness and anxiety to get rid of the fever, they buy a patent medicine which sells largely in the village, and after using it for three or four days, the fever subsides or altogether disappears, and they are delighted at the wonderful efficacy of the medicine, not knowing what baneful effects will subsequently follow from the poisonous action of iron and other contraindicated drugs which they have swallowed along with the quinine which has checked the fever. Being relieved of the fever, they resume their work, and after two or three weeks get a relapse, when they again take the same medicine: the fever subsides in three or four days as before, and they go to work again, each time in a more exhausted condition than before. As a rule, a few relapses yield to the same treatment. In this way, suffering from frequent relapses and using large doses of quinine and iron every time in the course of high fever, they become more and more weak and enervated; the liver and spleen become enlarged, emaciation follows, dropsy supervenes, vital power comes down to its lowest ebb, and they are reduced to the living skeletons so frequently to be seen in fever-stricken districts.

It is generally believed that enlargements of the spleen, which are so much noticeable in their various stages of being slightly, moderately and excessively enlarged among the poor population of malarial districts, are caused by frequent relapses of the fever, and I may unhesitatingly add that the repeated and indiscriminate use of iron and other injurious ingredients in all stages of the fever is another potent factor in enlarging these organs and gradually leading to fatal consequences. Observation has also proved that the percentage of enlarged spleen in the riparian districts is far above than the percentage found in inland districts, and the reason of it is not far to seek. It is the poor and ignorant villagers residing in the more unhealthy out-lying rural tracts that largely consume these patent medicine, and are consequently the greatest sufferers with enlarged spleen and liver.

The use of these patent medicines has unfortunately become so popular that, notwithstanding all this mischief of human suffering and death which has been going on for the last forty years, the voice of reason has never been raised to question its righteousness. However palpable the cause may be, perhaps it would be blasphemy for any one to attribute the evil to these favoured bottles, pills or powders, which have such a magnetic charm over the poor and ignorant sufferers.

I cannot be too strong in my assertion that the effects of these patent medicines are far more formidable and injurious, and less amenable to treatment, than those of the malarial poison itself. It is far more difficult and hopeless to cure diseases with complicated symptoms brought on by mal administration of medicines than in their simple state.

With the few exceptions of patent medicines professed to be made up of indigenous vegetable drugs, the bulk of them are prepared with the same medicines which are recommended and used in our therapeutics for the treatment of malarial fevers. But the mischief lies

in the injurious practice of mixing all of them in one mixture and using the same as a panacea in all stages of the disease, irrespective of the conditions in which each of the medicine is indicated.

Such is the insidious way in which these patent medicines are sapping the vitality of the fever-stricken people of this country, augmenting their sufferings and hastening their death. I think it is high time that the public attention should be called to this lamentable state of things, with a view to bring about a change in the policy, principle of preparation, and the mode of administration of these medicines. The first and simple improvement suggested would be to separate the medicines according to their respective modes of action, instead of combining all in one mixture; and secondly, to administer them separately, according to their indications in the different stages of the disease. Such an innovation on approved principles will be a boon to the country, and every effort should be made and encouragement given to its adoption.

It may be news to the general public that these patent medicines, instead of curing these fevers, have been aggravating their symptoms, bringing on serious complications and causing death after prolonged suffering. But it is a matter of great regret that such widespread practice has escaped the attention of the profession, and especially of responsible medical authorities, who have made malarial fever a subject of their special study and enquiry. One word from them in time would have nipped the evil in the bud and saved the sufferers and lives of thousands and thousands of the fever-stricken people. However, it is a hopeful sign that the more intelligent portion of these sufferers from their practical experience are fast losing their faith in these medicines. Be that as it may, and however strong the current of popular opinion may be in favour of these patent medicines, I feel very strongly in the matter, and deem it my duty to express my views on the subject for the benefit of suffering humanity, and risk the courage of my conviction without any fear of contradiction.

With these few remarks, I leave the matter in the hands of the profession and the sanitary officers for proper investigation, and to find out means to check this evil practice.

ABSTRACT OF A CLINICAL LECTURE ON RECURRENT APPENDICITIS, WITH REMARKS ON A SERIES OF FIFTY CASES TREATED BY OPERATION.*

BY F. A. SOUTHAM, M.B., OXON., F.R.C.S.,
Surgeon to the Manchester Royal Infirmary; Professor of Clinical Surgery, Owen's College, Manchester.

THE causation and symptoms of recurrent appendicitis, and its treatment by removal of the appendix, having been described, the following reference was made to a series of fifty operations which had recently been completed for this affection, as the conditions met with in the cases so treated served to illustrate many of the points to which attention had been directed.

* Delivered at the Manchester Royal Infirmary, and sent to the Record for publication.

CONDITION OF APPENDIX.

In almost every case the walls of the appendix were thickened, and at some point in its course the lumen was either partially or completely occluded. On the distal side of the obstruction the tube was frequently found to be dilated, and distended with fluid, which in most cases was of a mucopurulent nature, but in a few instances clear and watery or consisting of pure pus. In some cases the appendix was quite straight, in others twisted or sharply bent on itself, occasionally at such an acute angle that its tip was almost in contact with its caecal extremity.

OCCURRENCE OF SUPPURATION.

In fifteen cases suppuration had occurred in the neighbourhood of the appendix. In twelve instances a localised abscess was present, often of small size—for example, not containing more than half a teaspoonful of pus. In other cases there was no distinct collection of pus, but small caseous deposits, evidently the inspissated remains of former abscesses, of which the fluid portion had become absorbed. In three instances the suppuration was diffuse, there being well-marked evidences of general purulent peritonitis when the patients came under observation.

This fact—namely, the frequent occurrence of suppuration in recurrent appendicitis—should be borne in mind in the treatment of this affection, for it is a strong argument in favour of operative interference. Though in the majority of cases the attacks subside time after time without any formation of pus, yet there is always a great risk of this complication occurring, and it would appear that a repetition of the attacks is no safeguard against it. In most of the cases where an abscess had formed the attacks had been frequent, and in each of the three patients, where the suppuration was diffuse, they had been so numerous that the patients had lost count of them.

The formation of pus was usually found to be associated with a perforation of the appendix, and was therefore probably excited by an escape of its contents. In one case the abscess presented in a very unusual situation—namely, on the anterior wall of the rectum—the first symptom indicating its existence being a sudden attack of retention of urine. The abscess was tapped and drained *per rectum* with a satisfactory result, and the patient, a male, made a good recovery.

FÆCAL CONCRETIONS.

In seven cases faecal concretions were found to be present; in five the concretion was lying inside the appendix; in two it was outside, having perforated the walls of the process and excited suppuration round it.

FOREIGN BODY.

In only one instance was a true foreign body present, and this was a pin which was found in an abscess cavity in close proximity to the appendix. The pin had probably been lodged in the appendix for some time, and then ulcerated through its walls, for the process was surrounded by adhesions and almost obliterated. The head of the pin was encrusted with a considerable deposit of calcareous matter.

ADHESIONS.

In the majority of cases adhesions were present, in some instances so slight as to cause no trouble, in others so extensive and so dense that considerable difficulty was experienced, first in recognising, and afterwards in liberating and removing the appendix. Their presence or absence bore no relation to the number or severity of the attacks, and it was impossible to say before the operation whether or not they would be encountered. For example, there was not a trace of an adhesion met

with in one patient who had suffered from about twenty well-marked attacks, while in others, after only two or three slight attacks, they were found to be so extensive as to render the operation extremely difficult. It was noticed that when a local thickening or induration could be felt during the quiescent period following an attack, adhesions were always present; but the absence of this sign could not be taken as an indication that they did not exist, for the appendix was often found lying behind the caecum with its tip directed backwards, fixed and buried in a mass of adhesions which it was impossible to recognise previous to operation, and not even after the abdomen was opened until the overlying caecum had been drawn forwards and upwards out of the way.

A complication occasionally met with as the result of former attacks of appendicitis is intestinal obstruction from inclusion and compression of a coil of bowel in, a mass of old adhesions. Several cases of this kind (not included in this series) have come under my observation, where a median laparotomy was performed for the relief of the obstruction, and where the intestine was found so tightly constricted and bound down that its liberation was a matter of considerable difficulty.

NUMBER OF ATTACKS AND THEIR BEARING ON THE QUESTION OF OPERATIVE INTERFERENCE.

In forty cases the patients had suffered from three or more attacks, and in thirteen instances the attacks had been so frequent—often ten or twelve, and sometimes even more numerous—that no count of them had been kept. In five cases there had been only one distinct attack, the operation being performed, as pain, tenderness, and a localised thickening persisted for some time after the subsidence of all the acute symptoms. In one of these the appendix contained a hard faecal concretion; in two it was completely stenosed and dilated beyond; in the remaining two it was bent and bound down by adhesions, so that there would undoubtedly have been a recurrence of the attacks in each instance if it had not been removed. The persistence, therefore, for some weeks or months of a tender swelling or thickening in the situation of the appendix, especially if accompanied by rigidity of the overlying muscles and a varying degree of pain, may be regarded as an indication for operative interference, even when a patient has suffered only from a single attack of appendicitis. In the absence of these symptoms, I should not advocate operation after a first attack, for it is a well-recognised fact that a patient may suffer from a single attack and have no recurrence. The probability of the attack recurring is variously estimated at from 23 to 44 per cent. of all cases. When, however, a patient has suffered from a second attack, operation should be advised, even in the absence of any local symptoms during the quiescent periods, for after a second attack more are almost certain to follow.

DURATION OF SYMPTOMS.

The length of time during which the patients had suffered from the attacks varied from several months to six years.

SEX.

Of the fifty patients, thirty-five were males and fifteen were females, it being generally found that the former sex are the most liable to this affection.

AGE.

As regards the age of the patients, more than one-half of the cases—namely twenty-nine—were met with in persons between 20 and 30 years old, twelve occurred in persons between 10 and 20, seven between 30 and 40, and two between 40 and 50; so that after 30 years of age the tendency to this affection diminishes as life advances. Its more frequent occurrence in young subjects is probably due to the fact—as KELYNACK has pointed out—that more lymphoid tissue is present in the wall of the appendix in the young than at a more advanced age, and the tendency for this structure to become the seat of inflammatory processes in early life is well recognised.

† In fourteen cases operated upon since the completion of the above series, a local abscess was found in three instances. This gives a total of sixty-four cases, in eighteen of which suppuration had taken place—that is, in 28 per cent.

A MIRROR OF PRACTICE.

A FATAL CASE OF TRAUMATIC TETANUS TREATED WITH ANTITETANUS SERUM.

BY CAPTAIN E. C. HAYES, R. A. M. C.,

Barrackpore Military Hospital, Lower Bengal.

THE treatment of tetanus by antitetanus serum is as yet on its trial, and this explains the publication of the following case :—

G. W., R. G. Artillery, was admitted into hospital on June 6th, 1900, with a severe burn of the right hand. The back only of the hand was involved, and its outer palm was mostly affected. The whole of the posterior surface of the four fingers was severely charred; the bone of the first phalanx was wholly exposed, as well as half that of the second phalanx, and the joint disorganised; the middle phalangeal joint of the third finger was also opened, and the extensor tendon was in view for about $2\frac{1}{2}$ inches of its length. The history of the case was that while working at a forge the patient had been overcome by the excessive heat, had fainted, and his hand had come in contact with the fire. The usual caron oil treatment was at once applied, and the patient transferred to hospital, where opium and stimulants with quinine were administered. There was, needless to say, considerable shock.

All went favourably up to June 14th (the ninth day), when the sloughs, which were very extensive, began to separate. On the morning of June 15th the patient complained of being unable to open his mouth freely. Examination revealed the fact that his masseter and sterno-mastoid muscles were abnormally tense and rigid. The onset of tetanus was at once suspected. The patient was seen in consultation with Major R. R. H. MOORE, R. A. M. C. The question of amputation at the wrist was dismissed, as it was hoped to remove the toxin-producing focus by a less radical measure, especially as the thumb, forefinger, and middle digit at any rate were expected to recover. It was therefore determined to use almost continuously the hand-bath with a warm solution of 1 in 1000 corrosive sublimate, plus five parts of tartaric acid, as recommended by SAHLI and endorsed by ROSE, of Zurich—a solution which KITASATO states kills tetanus spores in thirty minutes. The special stimulating fluid dietary on which the patient had been placed was continued, and isolation in a quiet dark room adopted. Antitetanus serum was sent for, and in the meantime hypodermic injections of a 1 per cent. solution of carbolic acid, as recommended by ROSE, were given in five minim doses every three hours, combined with the exhibition of chloral hydrate grs. xv at once, and grs. x every two hours afterwards.

In the evening the patient remained in much the same condition. He was sweating, as is usual, very freely; but said his "mouth was better a trifle." He had received all four hypodermic injections of carbolic acid, and the chloral had produced no drowsiness. His condition next morning was somewhat worse. The rigidity of the sterno-mastoids had increased, and he had had during the night four severe attacks of spasm, involving the chest

and abdominal muscles, and presumably also the diaphragm. Sweating was profuse. His speech was still fairly clear. The hand-bath had loosened the sloughs, and more were removed with forceps. The wound had commenced to granulate at the edges. The fingers were then separated by plugs of cotton wool, and immersion continued all day. Carbolic lotion was substituted for the corrosive temporarily as a preventive measure against absorption of the latter. The chloral was stopped and a more vigorous sedative régime instituted—that is, $\frac{1}{2}$ gr. of acetate of morphine was given hypodermically every three hours. This was continued all day. His temperature at 4 P.M. was 99.4° , and his pulse 98, full and strong. Spasms were more severe and easily excited, while the patient had obtained no sleep, notwithstanding the morphine administered. At 5 P.M. the required antitetanus arrived from Messrs. SMITH, STANISTRETT, and Co., of Calcutta. They supplied it in the dried state, as prepared by the Jenner Institute of Preventive Medicine; dose one to two grams. The fluid serum was prepared from this, and $1\frac{1}{2}$ gram was hypodermically injected at once. The morphine was neither lessened nor discontinued. Through the night the hand-bath was used.

On the following morning, June 17th, no change for the better had taken place. He appeared worse; had several severe spasms during the night, which were easily provoked. By the morning his temperature had risen to 103° , respirations 22 per minute, pulse 98 per minute, full and strong. Specific gravity of urine 1030. No albumen or sugar. There appeared to be less rigidity of the masseters and sterno-mastoids, but the recti abdominales were severely affected, and, with the onset of a spasm, emprosthotonos, though not very marked, appeared. A further $1\frac{1}{2}$ gram of the above antitetanus was then hypodermically injected at 10 A.M. The patient was left in the same state, and had no appearance of any impending danger. Spasms continued every quarter hour, as on the day before, and the pulse was full and strong, nevertheless the patient died suddenly in a spasm, of no severe character, quite unexpectedly at 2.5 P.M. Death was due presumably to spasm of either the heart or respiratory muscles.

Necropsy.—The brain was found to be highly congested, especially the superficial veins; the fourth and two lateral ventricles shared in the same condition; through the white matter minute points of congestion were present. The cord was in a similar state. The musculo-spiral and posterior interosseous nerves of the wounded arm were exposed, but no vascularity was found, though they had a pale yellowish and parchment-like appearance. The blood vessels were full of dark fluid blood.

Remarks.—Taking ROSE's definition of a severe case of tetanus as one occurring within ten days of the injury, this case must be regarded as moderately severe, though the clinical symptoms of its onset were comparatively mild. OSLER remarks on this head that favourable indications are late onset of the attack, localisation of the spasms to the muscles of the neck and jaw, and absence of fever; from which also it must be concluded that the above case was of a medium degree of severity. If so, a favourable result would have been anticipated from the exhibition of antitetanus. It certainly was most

disappointing in its results, particularly because I was biased in its favour by the 68 per cent. of recoveries among cases collected by GOODRICH, which compares more than favourably with the pre-antitetanus serum day fatal percentage of 85 to 90. It may be fairly remarked as a contrast to these figures of GOODRICH that KANTHACK showed from collected cases treated with the most universally praised antitetanus, that of TIZZONI, the comparatively low figure of 25.8%. The evidence of one recorded case must of course be taken with that from others in attempting to answer an apparently unsatisfied question.

RUPTURE OF KIDNEY AND SPLEEN.

BY LIEUT.-COLONEL W. A. GARDINER L. R. C. P. I.,
R. A. M. C. (RETIRED.)

Military Station Hospital, Ipswich.

*BOMBARDIER J. P., aged 40, a Royal Reserve man, had served in India twelve years, took his discharge, and was called up last March. He was rough-rider to his Battery of Royal Field Artillery. He was a stout, somewhat florid man, in good health. On October 29th he was riding a remount in the barrack square, when his horse shied, and then bucked, throwing him heavily. He was, he said, riding at a walk, and loosely in his saddle, which accounts for the heavy fall.

He was at once brought to hospital, walking part of the way with help. I was in the barracks, and saw him a few minutes after the accident. He complained of severe pain in the left loin, extending across the abdomen; he was perfectly conscious and clear in his statements. He said he was not kicked, that, as far as he could tell, "he fell in a heap" on the left side, but more or less doubled up.

I found no external injury, no broken ribs, no injury to the head or spine, and no contusion of the abdomen. The severe pain continued all day. He was admitted about 11 A.M., and died at 7.30 P.M. During the day he passed two or three times a small quantity of blood from the bladder.

A post-mortem examination was made thirty-nine hours after death. In this I was fortunate in having the assistance of Dr. GEORGE ELLISTON, M.O.H., Ipswich. The head was not examined. There was no mark of injury on the body except two trivial abrasions—one on the left cheek, and one on the point of the left shoulder. There was no evidence of any injury to the abdominal parietes. The body was that of a well-fed, healthy, strong man, probably weighing about 13 stone. The lungs were normal, with the exception of old adhesions on the left side. The heart, loaded with fat externally, was otherwise normal; the valves were healthy, its weight 1 lb., 7 ozs. The stomach was empty and quite healthy; the liver was healthy, weight 3 lbs. 14 ozs. The right kidney was normal, 6½ ozs; the left kidney and the spleen were embedded in a mass of coagulated blood, which occupied nearly the whole of the left side of the abdomen. The capsule of the kidney was ruptured, and the kidney was torn across into nearly equal separate halves—weight 8 ozs. The spleen also was

ruptured at its lower end; the part torn was not, however, like the kidney, detached. The hæmorrhage appeared to have taken place chiefly from the splenic vessels. The intestines and bladder were normal. This very grave injury, arising in so simple a manner, can be only partly explained by the severity of the fall. Probably muscular contractions at the moment helped, but it is a well-known fact that a complete fall from horse-back at the moment when the rider is sitting loosely at a walk is likely to be worse than when going at speed and with a tight seat.

RAPID CURE OF POPLITEAL ANEURISM BY ACUTE FLEXION.

BY LIEUTENANT-COLONEL H. R. WHITEHEAD, F.R.C.S.,
ENG., R. A. M. C.

Station Hospital, Murree, India.

PRIVATE J. S., Queen's Regiment, was admitted to the Station Hospital, Murree, with the following history: He first felt pain in the right popliteal space in middle of June 1900. He was doing gymnastics, and after jumping the horse he suddenly felt pain behind the right knee. He continued at his duty for about a fortnight, and did not notice any pulsation, but the leg was swollen and painful. He reported sick at the Station Hospital, Kuldanea, on July 4th, and it was then discovered by the medical officer in charge that an aneurism of the popliteal artery was present. He was treated by elevation and flexion of the right leg and low diet, and a great deal of the swelling disappeared. He was transferred to the Station Hospital, Murree, on July 15th. A very distinct fusiform tumour was then present in the right popliteal space; it was about the size of a pigeon's egg and pulsated. The pulsation was expansile and synchronous with that of the femoral artery. The case was evidently one of fusiform aneurism of the popliteal artery. Only slight pressure symptoms were present, and the man was in good health. He had had syphilis in 1896, and was rather intemperate in his habits; but otherwise had a good history.

Before proceeding to any operative measures, it was decided to try the effect of flexion of the limb. On July 18th I flexed the right leg on the thigh, and the thigh on the abdomen, and secured the limb in this position with bandages. After half an hour the pain was so severe that I had to relax the bandages somewhat, and at the end of an hour the pain was still great, and I discontinued the flexion. On relaxation of the flexion the tumour was still pulsating. The next morning nearly all pulsation had stopped. It could only be feebly felt. There is no coldness of the leg or foot, but the aneurismal sac was very tender. The next day pulsation had completely stopped, and from that date to the present time (August 20th) had not recurred.

He had no coldness of the foot or extremity, and the collateral circulation was perfectly established. The tumour had consolidated and contracted, and could now be felt as a solid tumour in the ham.

The case is a remarkable one in the rapidity of the cure and the easy way it was effected.

AN UNUSUAL CASE OF IODOFORM POISONING.

BY HENRY M. EUSTACE, M. D.,
Dublin.

E. W., aged 35, although partially demented, was physically healthy, with the exception of a small superficial sore on the right ear.

On July 21st, at 11 a.m., I applied a dressing of iodoform gauze, two layers thick and 1 inch square, to this sore on the ear.

On the morning of the 22nd the nurse in charge of the case found the patient in bed, and the extremities very cold, the face anxious, the breathing normal, with the pulse poor. She soon became very restless, micturated involuntarily, and delirium of a muttering type was present. No erythema was visible, and no sample of urine could be obtained.

The pulp of chewed-up wood-wool and iodoform gauze was found in her bed; and she had evidently sucked the dressing during the night, and stated she had done so. She was given an emetic of mustard and water, which acted promptly. Hot-water bottles were then applied to the extremities, and the patient rallied, and drank hot milk. At noon on the 22nd the patient was given some nourishment, but vomited immediately, and complained of pain in the abdomen, and again collapse threatened. She was able to retain hot coffee, and, with the exception of a rise of temperature to 102.4° F. that evening, she recovered without further symptoms of poisoning, and was up on July 23rd.

The amount of iodoform in such a dressing must have been very small, but the patient must have been peculiarly susceptible to the drug. Dr. Fox has reported a case of iodoform poisoning by smell only, but in all other reported cases that I can find, the drug has been absorbed from the dressing through a raw surface, and therefore I venture to report this case in which the drug was taken directly into the stomach.

A CASE OF FRACTURE OF NECK OF FEMUR RESULTING IN ABSCESS, SEPTICÆMIA AND DEATH.

By THOS. H. BONNAR,

*Military Assistant Surgeon: Medical Officer in Charge
Plague Camp, Chouva.*

K. SINGH was a Punjabi Sikh lad of fairly good physique, but wanted. He was admitted with a diffuse swelling of the upper part of the right thigh, red and tense, with pain and hardness chiefly on the lower surface of the thigh. Right inguinal glands more prominent than left: tongue coated: bowels constipated obstinately: temperature normal in morning, with evening rise to about 100°: features drawn: inability to sleep. He gave no history of injury, but an abscess was suspected, the cause of which was not clear. There was no external injury noticeable. His leg was flexed and slightly turned inwards, which was attributed to the tension of the upper thigh. After a day or two the patient became restless and wandering, making attempts to leave his cot. The delirium became gradually worse: subsultus tendineus and picking of bedclothes: tongue dry and brown coated: pulse small and frequent: ammoniacal odour. Drowsiness and coma set in, which continued till he sank and died.

At the autopsy the internal organs were found healthy. On dissecting the muscles in the position of SCARPA's triangle, and also the superficial muscles at back of right thigh, nothing was discovered, except a serous exudation from the oedematous tissues. Femoral glands were normal: the psoas muscle on that side was found free, so also the iliac muscle, but in dividing the gluteus maximus and plunging the scalpel into the muscles, it reached to back of thigh, about 8 ounces of pus, and slightly offensive, welled out—the situation led to the head of the bone. On inserting the finger there was a jagged fracture of neck of femur (above trochanter); the bone here was rough to the finger and devoid of covering.

Indian Medical Record.

23rd January 1901.

I. M. S. MEN IN PRIVATE PRACTICE. ITS LIMITATIONS BY GOVERNMENT ORDERS.

QUITE recently we commented on the subject of men of the Indian Medical Service being allowed by Government to engage in unrestricted general practice in large cities. It may be as well to quote the official pronouncement on this matter. The following quotation is an excerpt from "THE REPORT OF THE MEDICAL COMMISSION OF 1878," appointed to enquire into the expenditure and administration of public hospitals in Calcutta:—

Resolutions gazetted by the Bengal Government.—
"XVIII.—That, subject to the fullest responsibility for the administrative and professional control of the institution under their charge, medical officers, who are at present allowed to take *private practice*, shall continue free to do so, provided it does not interfere with their public duties.

"The Committee consider that *private practice* has had much to do with the irregularities mentioned, inasmuch as the time of the officers concerned has been so occupied as to make them trust too much to their subordinates. They consider, however, that it is impossible to abolish the privilege without increasing the pay of the appointments. These are at present the chief prizes of the Service, but they are so in virtue of the privilege, and the mere pay attached to them is quite inadequate, when regard is had to the expense of living in Calcutta, to secure the services of the class of men required to hold them. They think, too, that the interests of the public are entitled to consideration, and that the experience of officers holding important hospital appointments should be available to the community, and that, if Resolutions XIV and XVIII are accepted, the interests of Government will be sufficiently guarded. A certain limited class of officers—Resident Surgeons, the Health Officer of the Port, the Principal of the Medical College, &c.—are forbidden to practice. The pay of resident medical officers was raised on the express ground that they were to abstain from practice, and that of the Principal is Rs. 550 a month higher than the maximum pay of a professorship, and all three have rent-free residences. The Rule (B. ii) has been so far relaxed as to allow the Principal to engage in consultation practice, and for this the Committee think there are reasons of public advantage. The principle on which the relaxation was allowed is held by the resident medical officers at the College Hospital to allow them the same privilege, but the Committee think that this position is indefensible. It is contrary to the nature and intention of a resident surgeoncy that the incumbent should engage in practice outside the institution. The rules of Government in this respect have not been strictly observed, and the Committee think—

"XIX.—That the rule forbidding certain officers to engage in private practice should be enforced, and should apply to native as well as to European resident officers.

"The resident medical officers at the Medical College Hospital are at present *Professors of Pathology and Physiology*. In the opinion of the Committee the two professorships should be *full professorships held by independent teachers*; and the resident medical officers, holding, as they do, a subordinate position to the hospital staff, should, as a rule, be junior men, and should hold their appointments for a limited period—*not more than two years*—as originally laid down for the resident surgeon in Government Order No. 370 of 1867. The experience acquired in this period as resident medical officer to a great hospital is so valuable, that as many officers as possible should, in the interests of the State, have the advantage of it. *The same remark applies to the Resident Surgeons to the General Hospital* without attached duties. The Second Resident has charge of the Presidency Jail in addition to his hospital work, but the Committee think that this duty should be that of the First Resident Surgeon, and that he should be a permanent official. Present incumbents should not be disturbed, but the Committee think that on their obtaining preferment, the rule suggested should be adopted.

"The *Native Assistant Surgeons* who are teachers in the Sealdah Hospital exercise the privilege of practice. As the questions of medical education at the Campbell Medical School and of the rules under which Assistant Surgeons are now admitted into the service have still to be considered by the Committee, they refrain at present from making any recommendations as to these officers.

"XX.—That *no medical officer* of any grade whatever should be (under pain of dismissal from Government service) allowed to have an *interest in any dispensary or druggists' shop*."

These paragraphs contain the definite orders of Government. We find that (1) certain I. M. S. men are permitted private practice under the distinct proviso that it does not interfere with their public duties. (2) That the resident medical, surgical and obstetric appointments of the Medical College and Presidency General Hospitals should be held by *junior men for two years only*. (3) That the professorships of Physiology and Pathology should be *independent appointments*. (4) That the Resident Surgeons of the Presidency General Hospital are prohibited private practice. (5) That Government medical officers are *"prohibited from having any interest in a dispensary."* This prohibition naturally includes *"a private hospital."*

Now let us see how far these rules are adhered to, either in spirit or intention, or literally.

(1) *I. M. S. men are allowed private practice, "provided it does not interfere with their public duties."* In an article on "CONSULTANTS IN INDIA" in the *Record* of the 17th October 1900, we had the following remarks:—

"Taking Calcutta as an example, we find the "consulting" I.M.S. surgeons, physicians, gynaecologists, ophthalmologists, etc., doing the very mixed work of general practitioners. They are at the beck and call of every

family they have contracted to attend yearly for a stipulated fee, day or night. Of course, as old and experienced civil surgeons they are good "all-round" practitioners, and remarkably well fitted for such work. But as "specialists" and "consultants," they must and ought to assume their legitimate role as such, and eschew work which does not come within the domain of their "speciality." When one comes to consider the arduous and onerous duties of a physician or surgeon to a large public hospital, his labours as a clinical teacher of a large class of students, his liability to be called upon to attend any serious case in his hospital, and his moral as well as his legal obligation to be accessible for such important and urgent official duty, it becomes transparently clear that such a man should, in simple and honest regard for his official duties, for which he receives a fairly handsome State salary, be within call for such work. *To indulge in general and family practice renders honest execution of public duty of the kind here indicated either absolutely impossible, or at least a very precarious possibility.* But this fact in itself gives prominence to a clear and emphatic duty on the part of I.M.S. practitioners. They should, without any administrative pressure, which must come sooner or later, relinquish all yearly contracts as family doctors, and all general casual out-door practice."

The Director-General of the Indian Medical Service may close his eyes to the patent facts revealed in this quotation, but it is a universally felt grievance that I.M.S. men attached to the Medical College Hospital do not perform their "public duties" fully and satisfactorily, and that "private practice" does, very materially and seriously, hinder and "interfere with" the honest performance of their "public duties." A strong man and an honest man at the head of the I.M.S. would put a stop to "private practice" by I.M.S. men at once, in the interests of the public, and allow these G. Pa. or so-called consultants, nothing but consultative practice. No reform in this direction can take place, however, till the I. M. S. is presided over by an impartial and level-headed officer. A flippant courtier will simply wink at failings and wrong-doing, for fear of estranging the good-will of the men in his own Service.

(2 and 3.) *The resident appointments at the Medical College Hospital should not be linked to professorships.*—It is astounding how the orders of Government with regard to these posts have been disregarded. As things have been going on for some time, we find the Professorship of Physiology linked to the resident surgeoncy, and the Professorship of Pathology linked to the resident physicianship, and that both the men occupying these resident posts are not junior men, for one is a senior Major and the other a senior Captain of the I. M. S. No two other members of the I. M. S. could be better fitted for these professorships but, according to the orders of Government, they should not be held by resident officers, for the simple reason that the work of a professor in either of these allied sciences in Medicine, demands the *whole time* of its incumbent. The "wisdom of Government" has enunciated this principle, and it is sound and just, not only for this reason, but also for the reason that the patients in the hospital must

suffer in 'view of such burdens being thrust upon resident officers. We find also a *senior* I.M.S. Captain as the obstetric resident. Then again the rule of only *two years' incumbency* is not followed in the General Hospital also. It is clear that the object of Government is to give as many junior I. M. S. men as possible an opportunity for special training, by making these posts tenable only for two years. It is unjust, therefore, to allow matters to go on as they are at present. Will not Colonel HENDLEY, the Inspector-General of Civil Hospitals in Bengal, who is regarded as "a strong man," do his duty in this matter?

(4 and 5.) *Further prohibitions as to private practice and as to interest in private concerns.*—In this connection we find that the Resident Surgeons of the Presidency General Hospital are as strictly prohibited from private practice as are the residents of the Medical College Hospital, and we ask if it is not true that this rule is regarded in the breach rather than in the observance. We have no desire to specify instances, but since rules were made to be obeyed, and it is thought that their proper observance is for the public good, we venture to drop this hint *pro bono publico*. So likewise in the matter of I.M.S. men "linking themselves" by unwritten contracts, not actually with "private dispensaries," but with such a commercial institution as a "private hospital" with South African proclivities. Surely this is a breach of "service decorum," if it is not a barefaced, though cunningly devised, method of violating the spirit, as well as the letter, of Government orders, which are fringed with the ominous penalty "under pain of dismissal from Government Service." We venture to suggest that if two of the I.M.S. "professors" of the Medical College would spend as much of their time with the public patients under their care in the public hospitals as they do with patients in the "private hospital" referred to, there would be less ground for general complaint that their public duties are being interfered with and neglected.

DIAGNOSIS AND SURGICAL TREATMENT OF TROPICAL LIVER ABSCESS.

In the Section of Tropical Diseases at the last annual meeting of the British Medical Association, Mr. W. JOHNSON SMITH, F.R.C.S., Surgeon, Seamen's Hospital Society, spoke on the Diagnosis and Surgical Treatment of Tropical Liver Abscess. We cull the essentials of his observations. After indicating the marked improvement during the last quarter of a century in the operative treatment and diagnosis of certain morbid conditions of the liver, resulting necessarily in an improvement in their prognosis, the speaker, on the basis of statistics quoted, said that he believed there was no necessity at the present day to anticipate any serious questioning of the absolute necessity of bringing under surgical notice any case of supposed tropical or amœbic abscess of the liver. The spontaneous cure of such a condition, even though the collection was a small one, was very problematical, and though, perhaps, for the subject of such disease, spontaneous rupture through the lung might be the happiest

event, it could not be overlooked that, while waiting for such not improbable result, the abscess might extend in a much less favourable direction. The need for surgical aid in cases of supposed abscess of the liver was urgent, not only for strictly therapeutical purposes, but also in a large proportion of cases 'for the sake of obtaining a certain and precise diagnosis. Except in those cases—a small minority—in which the abscess formed a well-marked tumour in the right hypochondrium, the determination of hepatic suppuration and the localisation of the disease, and also of the existence of one or a plurality of collections, was almost always attended with difficulty and uncertainty. This uncertainty was mainly due to two causes: (1) Most of the symptoms given in text-books were met with in other morbid conditions of the liver; and (2) they were often associated with, and masked by, those of dysentery and malaria. The temperature, shoulder tip pain, rigidity of the rectos, localised tenderness, chemical examination of the urine, were each and all unreliable symptoms. The recent employment of skiagraphy as an aid in diagnosis did not afford much help, for, besides requiring the aid of an expert, it could not do more under the most favourable conditions than assist the not very difficult diagnosis between pleural effusion and an enlarged liver. The strictly clinical signs of liver abscess as given in text-books varied considerably in diagnostic importance. In his own experience, the speaker had relied on the following: Residence in a hot country (the key-note): history of dysentery or chronic diarrhoea: tenderness over the liver, most marked at one spot: shoulder tip pain: gastric irritation: emaciation with sallowiness: depression: irregular temperature, with tendency to the remittent type: characteristic position, the patient lying on his back with the chest raised and the lower limbs slightly flexed. If in addition the patient presented in the right hypochondrium a fluctuating swelling over the most prominent part of which the skin was oedematous and congested, nothing could be more simple; but, unfortunately, such cases were in a minority. The most difficult of all were the very rare instances in which a small, single abscess is situated in the left lobe of the liver. The most reliable aids to diagnosis, however, were exploratory puncture and exploratory laparotomy—the former for preference—for, though the latter, if performed with proper precautions and care, was a safe operation, the former was much less alarming and troublesome. It was doubtful also whether laparotomy could, in the majority of cases, afford more help than simple puncture, and in the subsequent plan of treatment it would be found necessary to attack the seat of the disease by the same methods and the same direction as when the presence of pus had been revealed by a simple puncture. Moreover—and this was a strong, though perhaps a sentimental, objection to laparotomy as an exploratory measure—there was the probability that the exposed and handled liver might be found to be quite healthy. It would of course be difficult without laparotomy to find out a small abscess in the left lobe, but such a condition occurred only once in fifty cases. In case of failure with exploratory puncture, should high fever, sweating and exhaustion still persist, after an interval of a few days it should be again tried, and, if still a failure,

esort be had to exploratory laparotomy. If, as is usual, the characteristic fluid of a liver abscess be drawn up into the syringe and the patient is anaesthetised, it was advisable to complete the operative treatment at the same sitting, and to substitute the scalpel for any variety of puncturing apparatus, and to have recourse, according to the situation of the cavity, either to thoracotomy or some form of abdominal section. Thoracotomy almost always implied a transpleural incision, which, notwithstanding its unsatisfactory nature and the increased risk of infection by opening up two large serous cavities and the possibility of collapse of the lung, had, in suitable and favorable cases, on the whole, been a satisfactory operation—perhaps more satisfactory than any other operation for liver abscess. The surgeon's chief care was to guard against the risk of subsequent infection of pleura and peritoneum. The speaker thought it would be well to apply in all cases tests for both general and local leucocytosis. Should the fluid at the exploratory puncture exhibit leucocytosis, an effort should be made to shut off both the right pleural and the abdominal cavities before the cavity in the liver was opened and emptied. The best plan was perhaps VOLKMANN's method of plugging the open wounds in the chest wall and diaphragm with sterilised or antiseptic gauze, and postponing, for two or three days—if such delay were free from risk—the final stage of the operation. Operative treatment of liver abscess revealed by puncture of the anterior wall of the abdomen consisted in an abdominal section to a limited extent. In consequence of the invariable presence of adhesions in such cases, the knife could often be directly passed into the abscess without any exposure of the peritoneal cavity. The only cases in which the speaker would refrain from operating, excluding those in which the patient was much exhausted and almost moribund, would be cases in which there were clear indications of a spontaneous rupture of the abscess into the right lung.

Etiology of Gall-Stones.

F. C. SHATTUCK (*Philadelphia Medical Journal*) enumerates the well-known causes of biliary calculi as: (1) Cholesterolin, bilirubin calcium precipitated by changed reaction, bacteria of various types, foreign bodies. FARRICHS and NAUNYN give stasis, catarrh and changed reaction as the three chief causes. (2) Age, very uncommon in childhood, rare under thirty, somewhat common between thirty and sixty, very usual after sixty years. (3) Females suffer from them in the ratio of four to two. (4) Anything predisposing to stasis; here are felt the influence of age with its less active or slightly pathological metabolism, of sex with the sedentary life of woman, of enforced quiet in heart disease, of confinement among the insane, of altered anatomical relations in floating kidney, gastroptosis, pregnancy and lactation. (5) Bacteria are very important. Modern methods show: (a) Sterile foreign bodies do not cause gall-stones, though a sterile gall-stone may be penetrated at least by the colon bacillus; (b) the contents of the hepatic and cystic ducts are usually sterile; (c) those of the common duct are usually infectious directly from the duodenum; (d) gall-stones have been experimentally produced; failures have followed the use of virulent cultures, while attenuated cultures with or without foreign bodies have succeeded; (e) bacteria are found in a very considerable number of gall-stones; (f) the clumping peculiarity of the typhoid bacillus seems to be a very active factor and has succeeded experimentally; (g) the bacillus coli communis and bacillus typhosus are the most potent generators of biliary calculi.

COMMENTS AND NEWS.

THE DOCTOR IN THE WAR.

IT matters not how, and it differs not when,
Or whither the story first came,
'Twas told in a letter—that's all that I ken,
I can't even give you the name.

"The night it was sultry and sweltering hot,
And crowded together we lay.
'Hospital,' call it? I tell you 'tis rot,
The papers can say what they may.
Tents that were struck by some yeomanry men,
Canvas that soon was soaked through,
A blanket apiece—I tell you, Boy Ben,
The veldt aint no pillow to woo!
Them orderlies, rough, and devilish raw,
When Mausers are lodged in your bones,
They're well meaning lads, but I'm hanged if I saw
Chaps ever so callous to groans!
reckon, my lad, that you don't know the worth
A woman's soft tenderness means,
When writhing in pain on bare Mother Earth,
'Taint a matter, I tell you, of dreams!
'Sister,' we called her—my God, what a face,
'Twas made for an angel above;
Each man, as she moved in that death-stricken place,
Thought of Christ, and of mercy, and love.
While raising some poor lad with tenderest care
To moisten lips parched with the thirst,
Her gentle 'Poor boy—may God help you bear!'
Just made our hearts ready to burst.

The doctor—Great Scott! what a fiend for work,
In the rear, or out under fire!
Should any bloke hint that his duty he'd shirk,
Just tell him from me he's a liar!
The puzzle of all was his devilish luck—
Cool as you please under fire,
Always in danger, yet never being struck.
Head or hand never seeming to tire.
That sultry night as he passed through the tent,
Full of wounded stretched out on the veldt,
He paused and he stooped by each bed as he went,
With a look that just made itself felt.
A gunner who lay on the opposite side
That day had been shot through the chest;
'Poor beggar,' he muttered, 'he's had his last ride,
Save the one to his long home and rest.'
How well I remember the look that he gave
That youngster a lying aside me!
I knew by his glance he was booked for the grave,
And his dreaming of home not to be.
By some he would kneel and ask how they felt,
Or see that a bandage was right,
Give them some stuff that he took from his belt,
And wish them good luck for the night.
Ah! Ben, of what's 'forrard' how little we know,
Or when our last message we'll send.
But if not 'on duty,' we're kept here below,
Be certain 'taint here it will end.
Next day we had news of a yeomanry mess,
While scouting a neighbouring hill;
They went out some twenty—they came back twelve less,
Some wounded were lying about still.

The doctor went off with his stretchers and men,
To get the poor injured chaps in,
(My pen just refuses to write it you, Ben.)
But he was the first they brought in!
No searching for bullets—for shot through the heart,
The doctor had passed to his rest,
Right bravely and nobly he'd acted his part—
'Taint meant we should know what is best.
"Rest" did I say, Ben? I'm blowed if I know
How ever our doctor could rest!
If now he is reaping what here he did sow,
Then the doctor, he's reaping his best!

But now it is time that I finished my tale—
The doctor just lost me my track;
There's but a short spell for the Kimberley mail,
And so to that night I'll hark back,
Not long had the doctor gone out of our sight,
In vain I had tried for a sleep,
The candles that lighted the tent for the night
Began in their sockets to weep—
When sounds of sweet music stole into my ear,
And startled me there as I lay.
The low tenor notes of the lad that lay near,
Broke in on the dawn of the day.
I listened in wonder, my heart it beat quick,
As I heard the sweet musical tones
Rising so soft midst the dying and the sick
And mingling along with their moans—
Of "England" and "Home" and of "Beauty" he sang,
That his "duty" that day he had done.
No wounded one there gave a thought to his pang,
For of thoughts, save of home, he had none.
While slowly the sounds died away on the air,
And nought but men's breathing was heard,
A candle flared out, and revealed to us there
The smile that the sleeper's face stirred,
And then came a pause while I waited to hear
What else the boy dreamer might sing,
And visions of loved ones to eyes drew a tear,
Only thoughts of those dear ones could bring.
My God, how my heart seemed to rise in my throat,
As again the sweet music awoke,
And sadly the notes through the air seemed to float,
In the strains that the soldier well knows.
For now 'tis of "Home, sweet home" that he sings,
And the bars of "where'er we may roam"
Seemed to grip and to clutch at my heart's very strings,
As he murmured, "there's no place like home!"
And now came a hush that was like unto death
'As the Sister came into the tent;
She heard but his rapid and fast failing breath
As over the singer she leant.
A gleam of soft light from the fast rising sun
Passed straight through a small canvas rent,
And lit up the face of the death-stricken one
As his last loving message he sent.
She knelt down beside him to catch his faint words,
And slipped her cool hand into his.
"Tell mother—my last thought—stay—hark to the birds!
Are they singing?—Be sure and tell Liz!
The Bible she marked—and the locket of hair—
Bob my revolver.....now sing me the hymn—
'Lead, kindly light'.....choir—she's sure to be there—
Mother—old father—God! all seems to swim!"

Then fainter he whispered, "Bend down very near—
Write to Liz—I died loving her best;
To Bob—say to him I sold life—very dear—
For England".....He'd gone to his rest!

—H. MACNAUGHTON-JONES.

SOME SUGGESTIONS FOR THE IMPROVEMENT OF SANITARY AND MEDICAL PRACTICE IN THE TROPICS.

DR. RONALD ROSS, D. P. H., M. B. C. S., of the Section of Tropical Diseases at the annual meeting of the British Medical Association for 1900, suggested some noteworthy improvements in medical organization in the tropics. We take the essentials of the paper from a report in the *British Medical Journal*.

1. *Instruction in Animal Parasitology.*—Few medical men had made a particular study of the organisms of the principal tropical diseases, such as malarial fever, dysentery, ankylostomiasis, elephantiasis, endemic hæmaturia, and a knowledge of comparative parasitology was still more rare. The only remedy for this was a greater attention to animal parasites in the ordinary pathological curriculum.

2. *Instruction in Tropical Medicine.*—This was essential not only in the case of those who had joined the medical services, but with all practitioners, for hundreds were called to serve as ship doctors or as private practitioners in the tropics, or suddenly enlisted in wars, such as in South Africa.

3. *Special Questions in Examinations.*—Every examination paper on pathology and medicine should contain at least one question on animal parasitology and one in tropical medicine.

4. *Literature.*—There was a crying necessity for greater facilities in the way of small up-to-date libraries in all the leading towns in the tropics, especially in connection with the principal Government hospitals. It was impossible to understand why such a want had not been attended to long ago. It would perhaps be possible to arrange, through the library of the British Medical Association, an agency for the supply of monographs to the tropics, either by loan or sale.

5. *Microscopes.*—Antitoxins, antivenene and apparatus for bacteriological diagnosis should exist in the principal towns.

6. *Medical Regulations.*—These should be compiled and issued with the greatest care: they were in a bad way now in the tropics.

7. *Municipal Sanitary Regulations.*—The same could be said of these. It seemed that these regulations should be in the charge of a skilled central authority.

8. *Organization of Research.*—This could be done in three ways: (a) By the foundation of research laboratories—a method too costly and not likely to give the best results for the least money. (b) By the appointment of specialists to prosecute certain definite lines of investigation—a better method, but also somewhat costly and often likely to fail on account of the difficulty of selecting the suitable man. (c) By the encouragement of private research by large pecuniary rewards. This was the best method. It was impossible for men who had to live by their profession to undertake such duties. The occasional donation of a prize of some thousands of pounds for really notable investigations was probably the most efficient, though not the only, way to secure rapid scientific advance in the profession.

9. *A Central Scientific Authority.*—There had long been felt a need of some such institution to encourage and support medical scientific research in the tropics and to insist on those reforms in medical and sanitary practice which the progress of science continually demanded. "Perhaps there was already the necessary organization. The Royal College of Physicians and the Royal Society were already stirring in the matter of tropical medical science, and these and other societies would, it was hoped, soon "force the running still more."

BOGUS AMERICAN DIPLOMAS.

THE *Hindu Patriot* says :—RAI SARADA KANTO LAHIRI, M.D., who is alleged to have been one of the party concerned with Dr. J. ARMSTRONG, of Chicago, for selling bogus diplomas in India, has recently published a declaration to the effect that he is quite ignorant of the charges against him, that he is not a holder of bogus diploma of M. D., that he does not want to defraud the people of India by selling them things worthless and fraudulent at the same time. He declares to have obtained the degree of *Doctor of Medicine* from the International University of Chicago, chartered by the State of Illinois, according to the laws of Illinois, after having passed duly the examination held for the degree and securing seventy-five per cent. of marks on the whole. He further declares to have been decorated with the degree from the halls of the University before a Council convened, and so it would be evident that he has not purchased it, but rather he has earned the fruits of his own labour—has secured the degree with all the rights and privileges pertaining to it everywhere, after adducing sufficient proofs of his wide knowledge and ability in the science and practice of medicine. By virtue of the International law he claims to be recognised here as he has been recognised in the State of Illinois, which granted charters to the University under whose bye laws again he has been graduated as an M. D. He has attached with the declaration printed copies of the diploma of M. D., the question papers, the certificate of the President of the University attested by the Secretary, and a few other letters in order to clear away the suspicion from the minds of the public that he is a holder of bogus diplomas, and to make them believe that he possesses the genuine degree of the International University of Chicago, incorporated under the State Laws of Illinois. In reply to the charge that though the International University of Chicago is a chartered one, still its President is a fraud, and he may have been cheated by him, he says that if Dr. ARMSTRONG be really a fraud and has really deceived him, it is not his fault, but of Dr. ARMSTRONG and that of the State which has granted charters to such a base, dishonest person as he may be; for he has received the degree from a chartered University of the State of Illinois, and not from Dr. ARMSTRONG and his associates. He is not in any way connected with the fraudulent traffic of the purchase and sale of bogus diplomas, either in this country or anywhere else. He did not know the President nor any of the office-bearers of the University at the time when he applied to the office of the University for being examined, in order to be able to get the degree and "ent graduate fees." He has petitioned His Excellency the Viceroy as well as the Secretary of State for India, Secretary of State for Foreign Affairs, and the Consul-General of the Republic of the United States of America, to consider his case, and to take such necessary action as may restore his professional reputation, and thereby secure the means of subsistence to him and of his family.

ABOLITION OF THE USELESS CORONER'S OFFICE.

THE *Journal of the American Medical Association* says :—The recent carelessness of coroner's officials in Chicago, in a widely exploited case of fraud against insurance companies, has directed attention again to this "relic of barbarism"—the coroner's office. It is being urged strongly that the office be abolished and the work the coroner now pretends to do turned over to the police and the health department. There is no question as to the antiquated and unsatisfactory nature of the inquiries carried on by the coroner's office. The jury system is abused and prostituted, and the entire affairs of the office, both medical and administrative, are handed over completely into the hands of politicians without a trace of training or expertness in medico-legal matters. It is no wonder that justice miscarries under these circumstances, that people have no confidence in the coroner's verdicts, and that stories are afloat of extortion carried on across the bodies of the dead. But the coroner is an elective officer, whose election and whose duties in general are prescribed by State law. On paper his powers are as autocratic as can be conceived. The words of the statute give him power to step in wherever he has reason to believe or suspect that a body lies dead from unnatural or unknown causes. To change the present law so as to provide for a modern, a more intelligent and a more economic method of inquiry into the nature of the causes of death under these circumstances, would require legislative action and submittal of the proposed change to the people at large—a cumbersome and difficult procedure, sure to be met by obstacles of diverse nature. The abuses and shortcomings of the present system are especially felt in the large cities. In the country, where most individuals die peacefully and naturally, the people are not discontented with the coroner, and they have no occasion to make close acquaintance with the workings of his office. In a large city like Chicago, however, the present coroner's system has outlived its usefulness long ago. Inasmuch as the essential part of the coroner's work is of a medical nature, namely, the determination of the cause of death in a variety of cases, it follows that physicians are interested, especially in the proper administration of this duty. The medical profession must take an active and leading part in the attempt at securing improvement in the present methods, which are inadequate. Local and State societies should bring up matters of this sort for study and discussion, in order that the most serviceable plan may be evolved. This phase of medico-civic affairs certainly merits careful investigation.

THE USE OF OPIUM, GANJA, AND INTOXICATING DRINKS.

DRUNKENNESS has always prevailed in India among certain classes; but, as a nation, the people have been temperate for many centuries.

It is deeply to be regretted that, of late years, drinking habits have been acquired by some educated Hindus, whose forefathers never touched intoxicating liquors. This is largely attributable to European example.

When English began to be studied in India, some young men thought that they must imitate English habits as well as learn the language. Among other things, it was considered a mark of manliness and a proof of advance in civilization to use intoxicating drinks; and a liquor generally selected was brandy, the strongest spirit. The effects have been most disastrous. As the *Hindu Patriot* says :—"Wealth, rank, honour and character, health and talents, have all perished in the blighting presence of this huge monster."

The Government revenue from spirits, toddy, opium, bhang, etc., is about 5½ crores a year, probably representing an expenditure of double that amount including the gains of the vendors. All this might be saved and turned to useful account.

Happily there is strong movement in England in favour of temperance reform. Numerous societies have been established, the members of which pledge themselves not to use intoxicating liquors. Associations of this kind for the young are called "Bands of Hope." In the United Kingdom they now number upwards of two millions of members.

Indians are earnestly advised to adhere to the temperate habits of their forefathers. The Greeks had a saying, "Water is best." They should also try to induce others to follow their example. Temperance reform should be promoted in India as well as in England. Mr. W. S. CAINE, a zealous friend of the cause, has visited this country more than once on its behalf, and a number of societies have been formed which should be heartily supported. Municipal Commissioners and others should seek to reduce, as far as possible, the number of arrack and opium shops.

ECONOMIC PRODUCTS.

We quote from the *Chemist and Druggist* :—The Government of India has recently established an Economic and Art Department to be located at the Museum of India, Calcutta. Dr. GEORGE WATT, O.I.E., F.L.S., is in charge, and Mr. DAVID HOOPER, F.I.C., F.L.S., has been appointed Curator. Dr. WATT's work during many years in the development of the economic resources of India, of which his "Dictionary of Economic Products of India" was an outcome, is a guarantee that results of value in materia medica and in more extensive departments of commerce may be looked for. Mr. HOOPER is well known as the author of many valuable researches in the same field, and as part author of *Pharmacographia Indica*. Some indication of the methods in which the specimens are made to speak for themselves in the re-arrangement of the museums is gleaned from a report which Dr. WATT has presented to the Government on the Economic Section, in the course of which he mentions that a correspondence was instituted by the Imperial Institute at the request of Messrs. ROWNTREE & Co. into the subject of edible gums, and a very fine set of commercial samples of the chief gums of this class has been brought to the museum from Burma, Bombay, North-Western Provinces and Oudh, the Punjab, and the Central Provinces. The gums collected were as follow :—*Acacia arabica*, *A. Catechu*, *A. Jacquemontii*, *A. modesta*, *Anogeissus latifolia*, *Cochlospermum Gossypium*, *Mangifera indica*, and *Moringa pterygosperma*. Speaking of kino, he says :—"Over the specimens of kino a stem of *Pterocarpus Marsupium* has similarly been fixed, showing the excoarited bark (something like the appearance of a fish-bone) with the receiving apparatus into which the fluid is collected in Malabar."

COMPOSITION OF INDIAN COWS' AND BUFFALOES' MILK.

We quote from the *Indian Daily News* :—Dr. WALTER LEATHER, Assistant Agricultural Chemist to the Government of India, furnishes some useful information in a recent number of the Agricultural Ledger, upon the subject of the composition of Indian cows' and buffaloes' milk. The composition of cows' milk has been found in England to be very regular for different breeds, and to possess a relationship between the several component parts for all the breeds. It is of importance, so Dr. LEATHER thinks, to know whether these relationships hold good for Indian breeds of cows, and

to what extent they vary in the case of the buffalo. The analyses published by the Madras Board of Revenue are only two in number, and are therefore quite insufficient for the purpose in any case. In addition, however, they show the proportions of proteids and lactose to be altogether different from anything met with in the case of English cows' milk. Dr. LEATHER finds that the milk of the Indian cow contains a high proportion of butter-fat, varying from 4 up to 6 per cent. Buffaloes' milk contains usually much more, varying from 5 or 6 per cent. up to as much as 10 per cent ; that the percentage of proteids (albumen and casein) usually varies in cows' milk from 8.1 up to 3.5 ; in buffaloes' milk from 3.5 up to 4.3—such proportions as 5.0 and 5.2 per cent. of proteid, as stated in the Madras publication referred to, are never found—and that the percentage of milk sugar (lactose) in the cows' milk varies from 4.4 to 5.0, and in buffaloes' milk it is present in about the same proportion. It is never so low as is stated in the Madras publication. The percentage of mineral matter in cows' and buffaloes' milk varies from about 7 to 8, as it does in English cows' milk.

DEBT, THE NORMAL CONDITION OF INDIA.

ABOUT 80 years ago, CAREY, the veteran pioneer missionary of India, wrote :—

"There may exist circumstances in the habits of a people sufficiently powerful to defeat the most benevolent views of its rulers, and to entail misery where there is every preparation for the enjoyment of happiness.

"Among the numerous causes which contribute to exclude happiness from the people of India is the universal tendency to borrow which pervades the country. This disposition to borrow is not confined to one province, to one town, or to one class of individuals. It pervades the whole country with all the inveteracy of a second nature. The country is separated into two classes—the borrower and the usurer.

"An independent husbandman, free from debt, and looking forward with delight to the whole of his little crop as his own, is almost a phenomenon in the country. Most of them, through the wretched system which now prevails among them, are in debt perhaps for the seed they sow, are supplied with food by their creditors during all the labours of the field, and look forward to the end of the harvest for the payment of a debt, to which at least forty per cent. is added, and which, through the way in which it is exacted, is often increased to fifty per cent."

REAL CAUSE OF FAMINE AND POVERTY IN INDIA.

"THE regular drainage of wealth out of India has been variously estimated at from 30 to 70 million pounds sterling a year. Sir CHARLES DILKE said : 'Our kingdom and people together draw from India some sixty or seventy millions sterling a year in direct income.' Madame JULIETTE ADAM writes : 'In 27 years India has been drained to the extent of 500 millions. We will be considerably within the mark if we reckon it at the rate of 50 millions a year.' Now, India has been drained to this extent for the last hundred years, and the process is going on with increased volume every year. What wonder then if India is pauperised to-day ? Lord CURZON calculated last year that the failure of the monsoon throughout India, with the exception of our two provinces, caused a terrible loss to the country. That was a great calamity indeed ; it represented the loss of the earnings of the majority of the Indian population. But according to the calculation of Lord CURZON himself, it was only about 25 millions. Compare with this exceptional and abnormal item the regular annual drainage of fifty millions, and will anyone still wonder at the cause of the famine ? As we have said the world over, whether in the past or the present, there is not a parallel to it."

SUBARACHNOID INJECTIONS OF COCAIN AS A SUBSTITUTE FOR GENERAL ANÆSTHESIA.

PROFESSOR A. M. PHELPS, M.D., A.M., of New York, says:—Every surgeon has patients upon whom he has operated under local cocaine anæsthesia administered hypodermically, and he knows that there is an idiosyncrasy in some of those patients against cocaine, and if profound anæsthesia was produced by the injection of a dose of cocaine to one individual, which would be a small dose in another individual, death would certainly be the result in certain cases if a full dose were given.

Then, in conclusion, let us hasten slowly. Let these experiments be done by men of mature judgment, of long experience, of clear heads. And so long as the profession has an anæsthetic in ether that has so low a rate of mortality, or in nitrous-oxid gas in which the mortality is almost nothing, they will be loath to substitute for it a method of anæsthesia which must necessarily have a great mortality.

I was fortunate enough to listen to the discussions upon this subject while in Paris last summer, and I must say that I was very favorably impressed with what I saw until I learned that two deaths had already occurred there during the summer from this method of administration of cocaine. And now that we are occasionally hearing the mutterings of dissent in the profession on this side of the water, and hearing of a death or extremely alarming symptoms, let the profession take warning.

ASSISTANT SURGEONS OF THE STRAITS SETTLEMENTS MEDICAL SERVICE.

It is very agreeable news to learn that that hard-worked and deserving band of medical men who form the backbone of the Straits Settlements Medical Service, and who hitherto have been styled "Apothecaries," are now to be designated Assistant Surgeons. They are all men who hold the diploma of the local Medical Colleges, chiefly of Madras, and they are therefore well rid of a designation that was a misnomer in every sense of the term. They owe their success in this matter to the newly appointed Principal Medical Officer of the Straits Settlements Medical Service—**Dr. T. S. KERR**—an officer who has already done 17 years of excellent and approved service in the Straits Settlements, during the whole period of which he has evinced the kindest interest in the junior members of his service. We congratulate our brethren of the Straits on their well-merited change of designation.

THE GREATEST MEDICAL NEED REQUIRING LEGISLATION.

The Canadian Practitioner, writing about the use of proprietary medicines by the public, says:—Here then is a crying evil. What is the remedy? One would be to prohibit the sale and advertising of proprietary medicines, but especially if they contain any of the drugs in the poison or noxious list. It may be some time before our legislators can be educated up to this standard. There then remains a partial remedy that should at once be put in force. The exact composition of every proprietary medicine should be printed in plain language on the wrappers. In this way the people could see for themselves that some greatly vaunted medicine was only ditch water. Further, these nostrums could be ordered off the market if they contained noxious or poisonous drugs.

SHORT ITEMS AND PERSONALITIES.

At a meeting of the Senate of the Bombay University, to be held in the Sir Cowasji Jehangir Hall of the University on Tuesday, the 29th instant, consideration will be given to an offer of Rs. 6,000, in three and a half per cent. Government paper, from Mrs. Byramjee Nusservanjee Koyajee, for the foundation of a scholarship and a silver medal in the name of her husband, the late Surgeon-Captain Byramjee Nusservanjee Koyajee, of Her Majesty's Indian Medical Service, to be awarded annually to the Parsee candidate who passes the matriculation examination with the highest number of marks in elementary science.

Dr. Turner, the newly-appointed Health Officer for Bombay, leaves England in the *India* on the 30th instant, and will enter upon his duties in the middle of February. **Mr. W. Maughan**, Associate Member of the Institute of Civil Engineers, who has recently been appointed Deputy Executive Engineer for Drainage, Ordinary Branch, Bombay, will arrive at the end of the month. **Mr. Maughan**, who was selected from about sixty applicants, has been for eight years in the office of **Mr. Santo Crimp**, and has been engaged on **Mr. Crimp's** latest drainage schemes as Resident Engineer.

We all know the story of the grocer who sold "new-laid eggs," "fresh eggs," "cooking eggs," and "eggs," and that of the dairyman who was prepared to supply either "pure milk" or "milk guaranteed pure," according to price. But, if we may believe a Belgian paper, there is a dairy in the outskirts of Brussels which exhibits the following price list:—"Ordinary milk, 40 centimes the litre; milk drawn from the cow in the presence of the customer, 75 centimes; drawn by the customer himself, one franc."

Dr. H. Beale Collins, the Medical Officer at Kingston-on-Thames, suggests in the *Municipal Journal* that there should be a city for consumptives only. It would be a rural city, governed by carefully prepared rules and bye-laws. The most important point would be the laying out of the site in straight, broad streets, running at right angles to each other, so as to allow free currents of air through the city. The inhabitants would spend their lives in the open air.

A gentleman who applied for the position of resident house surgeon to Cardiff Infirmary having been rejected by the Medical Board on the ground that he was too highly qualified, the ruling has been overturned by the executive committee, and the honorary medical staff are considering whether to resign in a body.

Massage as a separate and independent study is the latest novelty at the Berlin University. Two courses of massage—one of six months' duration for students and one of one month for doctors—will be held under Professor Zibudowski's direction at the new University institute for massage and Swedish gymnastics.

Several cases of rabies have occurred lately among dogs in Madras, many animals being destroyed in the S. P. C. A. Infirmary. One, being treated by the owner for distemper, bit two children and was brought to the infirmary. Under treatment it showed symptoms of madness in a few hours. The children were sent to Kasauli.

Calcutta has had some novel amusement in a walking match between the Health Officer and a pony. Anybody who has walked a few times alongside of a stud knows that there is as much credit to a pony in losing a walking match to a man, as there is to a school-boy in being an "Entrance fail."

Major Wyville Thomson, of the Indian Medical Service, who proceeded on active service to China, returned to Calcutta on Saturday. He has been ordered to rejoin his regiment, the 2nd Battalion of the 2nd Gurkhas, at Dehra Dun.

The equipment has now been completed of a plague hospital for Poona Cantonment at a cost for 150 beds of Rs. 19,778. Another thirty beds are to be added, should circumstances necessitate them, at a further outlay of Rs. 3,000.

There are several cases of enteric in Lahore, the latest sufferer being Dr. Ruther Williamson, an English medical missionary. This is unusual for Lahore, which, as a rule, is singularly free from enteric.

Major A. M. Davies, R. A. M. O., will continue in his present appointment of special Sanitary Officer with the Government of India until the end of the present cold weather.

A blizzard has taken place on the Continent and ten deaths from cold occurred in Paris yesterday.

WANTED—A THIRD GRADE HOSPITAL ASSISTANT to come to Burma on mutual transfer with the undersigned. Any one from Punjab or N.-W. P. will be accepted. For particulars, address :—

H. A.,
C/o Manager, "Indian Medical Record."

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NOTICE.

All members of the Indian Medical Association are kindly requested to send their names in full with their present addresses, clearly written, to the Secretary.

Members who have paid their subscriptions and who have not received the membership certificates are kindly requested to notify the same to the Secretary.

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Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

Current Medical Literature.

MEDICINE.

Recurrent Insanity.

FROM a study of recurrent insanity, the following conclusions, among others, may be summarised :—

1. That recurrent cases form a large proportion of the curable cases admitted into asylums.
2. That in these cases hereditary predisposition to insanity is present in a greater number than in primary cases.
3. That alcoholic or other excess is a frequent factor in the causation of relapses.
4. That in cases in early life menstrual irregularities in the female and masturbation in the male are frequently present.
5. That the puerperal period and the periods of gestation and lactation account for a large proportion of female recurrent attacks.
6. That the climacteric period in both sexes is a potent predisposing or exciting cause.
7. That the majority of the attacks occur in middle life ; the first attack, however, is most frequent in the adolescent period, and is later in males than females.
8. That the prevailing forms of insanity are maniacal melancholic forms, being almost restricted to the middle period of life.
9. That the tendency is toward recovery, minor relapse being frequent before complete convalescence.
10. That the largest proportion of chronic cases is found in second attacks.
11. That in many of the cases a certain periodicity is established, the tendency, however, being toward chronic insanity.
12. That this class of patients furnishes many who are dangerous to themselves and others—a danger which is increased by the impulsive character of their acts and the frequent absence of marked premonitory symptoms before the onset of the attack.—HUGH KERR.—*Glasgow Med. Jour.*

Special Causes of Simple Fever in Children.

WORMS get more blame than they deserve for causing fevers and other disorders of childhood. In many cases the symptoms are due to other causes ; still worms are not a myth, and are sometimes the source of attacks of fever or other ailments. The worms most common in children are the round and pin worms. Their ova are taken into the body with the drinking-water, and from dirt swallowed by the child from the floor or ground containing some foul matter in which the ova are found. They may be taken in unclean milk, from particles of barnyard manure getting into it. Sterilising the milk, boiling the water, and seeing to it that the child has a clean place in which to play will prevent the disorder by keeping the worms from getting into the intestines. After they are once there, they must be gotten out by giving them something that will make them sick. The treatment for worms will be considered in another paper, so here I will simply add that the only sure symptoms

of worms is the finding of them in the stools, and that the secretions of a healthy digestive tract will usually destroy the ova of these troublesome parasites.

Local irritation is often a predisposing cause of simple fever. The excitement of the sexual organs arising from secret vice is sometimes the cause of fever in the young; eye-strain due to defective vision sometimes causes sickness at the stomach, vomiting, and fever whenever the child tries to study. This may often be remedied by properly adjusted glasses. In such cases a specialist ought to be consulted and the cause of the disturbance removed.

There are two diseases quite frequent in early childhood which often begin insidiously. These are tuberculosis and rheumatism. One of the first positive symptoms is the continuous moderate rise of temperature. It is not a simple, but a specific fever which marks the outset of these serious and often fatal disorders; but it is so often mistaken for such that it is well to mention it in this connection. The steady, daily continuance of temperature rise, with increase in the height of the fever, should lead a mother or nurse to suspect something more than a transient cause which can easily be removed, and should lead to consulting a physician. —*Good Health.*

Hæmorrhage from the Bowel.

THE passage of blood per rectum has been noticed as occurring in enteric fever, in ulcer of the stomach, and in dysentery; it may of course happen with any considerable breach of surface, but simple oozing without obvious rupture may also lead to considerable hæmorrhages. The way in which the blood is passed may give a clue as to the point whence it comes. In bleeding from gastric or duodenal ulcers the blood is considerably altered by the secretions, and forms a black, tarry, semi-liquid, or treacly mass (mælena); in hæmorrhages from typhoid ulcers the blood is equally unmixed with fæces, but brighter red and more fluid than in the former case, from the action of the alkaline contents; the blood in dysentery is in streaks or small clots, mixed up with mucous or pus or thin fecal matter, though from time to time small quantities of pure blood may be passed. Large quantities of blood may be lost from piles or from an ulcer of the rectum. Here the bleeding is generally caused by the act of defecation, the blood either streaking one side of the solid fecal mass or coming more or less pure in drops or streams after the motion is evacuated. In scorbutic, purpuric, and hæmorrhagic conditions (scurvy, purpura hæmorrhagica, acute yellow atrophy of the liver, malignant variola), blood comes from the rectum more or less mixed with fæces or pure, according to the part of the intestine yielding it or the freedom with which it escapes. —FREDERICK TAYLOR, M.D., F.R.C.P.—*New York Med. Rec.*

Hysteria in Childhood.

DR. HERMAN B. SHEFFIELD (*New York Medical Journal*) says the symptomatology of hysteria is characteristic for its changeability and multiplicity. In the United States it is observed, as a rule, in the following order of frequency: (a) Spasmodic affections (convulsions, spasm of the laryngeal muscles—croup—contractures, cataplexy); (b) sensory symptoms (painful sensations, anaesthesia, blindness, contracture of visual field, hemianopsia, deafness); (c) motor disturbances (paralysis of the extremities, paralysis of the laryngeal muscles—aphonia); (d) visceral and vasomotor disturbances (affections of the alimentary canal, dyspnoea, tachypnoea, hyperpyrexia).—*New York Med. Rec.*

SURGERY.

Fistula in Ano.

DR. COOKS (*Medical Monograph*) says:—

1. A careful physical examination of the lungs as well as of the entire rectum is to be made in every case.
2. Pulmonary tuberculosis is not necessarily a contraindication.
3. Do not stop until every sinus has been divided.
4. Remove all diseased tissue; large wounds are not to be feared.
5. Divide the sphincter but once, and then at a right angle.
6. Special attention is to be given to the mucous opening.
7. Invasion of the perineum is to be avoided, especially in females.
8. Systematic antisepsis is necessary.
9. Care and patience are required in the after-treatment.
10. In the after-treatment two warnings are to be heeded. Complaints of unusual pain, and increase in the discharge. Either of these may mean the formation of another abscess.
11. Hæmorrhage and incontinence are the chief dangers. Both are amenable to treatment and should not deter from operation.

Indications for the Mastoid Operations.

THE valuable paper read by BALLANCE on the conduct of the mastoid operation for the cure of chronic purulent otorrhoea before the Royal Medical Chirurgical Society has already been noticed in the *Medical Times* in the columns devoted to general surgery. The reading of this paper was followed by some remarks on the cases which require the operation, by Sir WILLIAM DALBY, who finally gave it as his opinion that the necessity for the radical operation would seem to exist in somewhat the following manner:

Firstly, undoubtedly in case where septicæmia has commenced.

Secondly, undoubtedly in cases where there is dead or carious bone in the tympanic cavity, accompanied by ominous symptoms often repeated.

Thirdly, wherever there is evidence of mastoid disease of long or short standing.

Fourthly, in a certain proportion of cases where there is evidence of dead or diseased bone, but a very doubtful history of ominous symptoms.

Fifthly, in a certain proportion of patients with intractable otorrhoea, in whom no bone disease can be detected, and in whom no history of ominous symptoms can be obtained.

DALBY'S concluding remarks are worthy of repetition. He spoke as follows:—"It will be seen, therefore, how very difficult it is to lay down definite rules as to local conditions only, which shall form a reliable guide in the selection of cases for operation;—how much allowance should be made for those surgeons who may be thought to operate without sufficient reason, as well as for those who have not seen sufficient reasons for so radical a treatment of what is apparently so common and not so serious a condition."

[The indications for opening the mastoid have received a very large amount of attention from many otologists. Sir WILLIAM DALBY'S words certainly give a fairly comprehensive review of the different conditions in suppurative middle-ear disease which should influence the surgeon in his

decision as to the advisability of an operation. We note, however, that Sir WILLIAM makes no allusion to the preliminary performance which occasionally in some cases averts the more serious procedure.]—*Medical Times and Hospital Gazette*.

Amputation of the Leg by Cocainizing the Spinal Cord.

WILLIAM E. LOWRE (*Cleveland Journal of Medicine*) reports the amputation of a leg without general anesthesia, but by cocainizing the spinal cord. The patient was a man, 64 years of age, and suffering from diabetic gangrene. With a long needle attached to an aspirating syringe, 2 drachms of a one-fifth of 1% solution of cocaine were injected into the spinal canal in the space between the last dorsal and first lumbar vertebra. In three minutes there was complete anesthesia of both feet and legs. The amputation was performed immediately and the patient felt no pain. In 20 minutes sensation was restored. At no time was motor power completely lost. There was no shock, as all afferent impulses were abolished. The pulse varied from 68 to 72 during the time of anesthesia. The patient suffered from headache and a tendency to fever and delirium the next day after the operation. After that the patient made an uninterrupted recovery.

Vasectomy for Enlarged Prostate.

REGINALD HARRISON, F.R.C.S., in the *Medical Fortnightly*, deduces the following conclusions: (1) That vasectomy has been shown to be specially effectual in the earlier stages of prostatic enlargement in effecting shrinkage of the gland and the restoration of the natural process of micturition. (2) That in cases in which there is evidence to show that the gland has in the course of degeneration assumed the form and structure of a fibrous growth the conditions are such, provided the symptoms of obstruction warrant the adoption of other measures than catheterism, as to render some form of prostatectomy preferable to either vasectomy or castration. (3) That when, as a consequence of sudden or protracted prostatic obstruction, secondary changes have taken place in the bladder itself, in the form of sacs, pouches, or trabeculation, the possibility of restoring its natural function by any means is extremely unlikely. Under such circumstances the induction of shrinkage of the enlarged gland will do good in affording a readier access for the catheter and in removing spasm, pain, or hæmorrhage connected with this or other similar process.

Prognosis of Dislocations at the Shoulder.

Do not be too quick to promise a perfect result after dislocation at the shoulder. The circumflex nerve passes closely around the surgical neck of the humerus, and often takes serious and lasting offence at the traumatism. Paralysis of the deltoid prevents abduction of the arm, permits gradual elongation of the capsular ligament, and recovery from it is usually slow and incomplete; hence the wisdom of a lagging prognosis.—WILLIAM V. MORGAN.

Wounds of Veins.

WOUNDS of veins are of importance both on account of the immediate and the remote effects they produce. The immediate troubles which have to be dealt with are: (a) dangerous hæmorrhage and (b) entry of air into the vein. The remote troubles are chiefly thrombosis, embolism, pyæmia and œdema of the part corresponding to the distribution of the vein. The immediate troubles are more common in connection with operation wounds, the remote troubles in accidental wounds.—OHENE AND BURGHARD.

OBSTETRICS AND GYNÆCOLOGY.

Remarkable Success in the Treatment of Eclampsia.

V. V. STROGANOFF says:—Out of ninety-two cases of eclampsia which he has had occasion to treat during the last three years, only five patients have died, and two of these were moribund when received. The third died from sepsis twenty-seven days after termination of the eclampsia, the fourth from pneumonia, and the fifth from atonic hæmorrhage four days after the eclampsia was over, the delivery being complicated in this case by a ventroflexion done four years previously. Seventy-nine out of the ninety-eight infants were saved. He considers eclampsia a self-limited infectious disease, the contagion air-borne, but so slightly virulent that no one except a woman in the puerperium is affected by it. His views have already been mentioned in the *Journal*, xxiv, pp. 735 and 1257. He treats it with a combination of morphin and chloral, the former for its influence on the sensory centres, and the latter to control the convulsions. By this means he arrests the attacks in twenty-four to forty-eight hours; the urine increases in quantity, and the secretion of mucous diminishes. He has evolved the following system, which he urgently advocates: First, a subcutaneous injection of .015 gm. morphin hydrochlorate during the first attack, or when first seen, repeated in one hour. The third hour a rectal injection of 2 or 3 gm. of chloral hydrate is administered and repeated the seventh hour. The thirteenth hour a similar rectal injection of 1.5 to 2.5 gm. chloral is given and repeated the twenty-first hour. The twenty-ninth hour another rectal injection of 1 to 2 gm. of chloral is administered and repeated the thirty-seventh and forty-fifth hours. If the comatose condition still continues with headache, especially if delivery is not terminated, the patient is still kept narcotized with small doses, .015 to .08 gm. of morphin and 4 gm chloral for the following twenty-four hours. Systematically proceeding in this manner, the recurrence of the attacks is prevented, and delivery occurs normally or can be hastened without danger to mother or child. His tabulated statistics show that the number of attacks in all his cases averaged only 2.4 to 3.3 per patient, while in other institutions they ranged from 6.9 to 9.5 during the same periods. He lays great stress on the importance of relieving the heart and lungs of every source of irritation—mechanical, physical or mental. The heart-action becomes very much depressed during an attack. Continuous reclining on the left side should not be allowed, nor even the pressure of the hand or arm on the heart or lung region. The clothing, blankets, or pillows should not be allowed to bind or weigh on the thorax in any way to impede the action of the heart or lungs. The mouth and nose must be kept free from obstruction from mucous. Fluids should be supplied by subcutaneous injection of 150 to 200 c.c. of salt solution or rectal injection of a litre in four or six parts during the day. Warm milk can be substituted for the salt solution in case of protracted eclampsia. Digitalis, inhalation of oxygen and other measures as indicated will also be found beneficial. The patient should be turned from the right to the left side and back again every hour or hour and a half, and other measures should be applied to loosen and favor the expulsion of mucous. If the lung symptoms become alarming and œdema is threatened, great

benefit can be derived from dry cupping. These minor points are all of great importance, but the chief aim in treatment is the suppression of the convulsions which can surely be accomplished by the system of administering morphia and chloral outlined above.

Arrested Labour from Distended Bladder in Fetus.

COUVEAIRE (*Bull. et Mem. de la Soc. Anat. de Paris.*) reports the delivery a little before term of a primipara, aged 24. Pregnancy had been normal. When she was admitted into hospital it was not certain how long the waters had escaped. There was slight albuminuria. The occiput presented to the right posteriorly, and there was some difficulty in delivering the head. Then the shoulders could not be extracted, even when the posterior arm was lowered. The child died during these manœuvres. The head midwife drew down the anterior arm, but the humerus was fractured and the shoulders remained fixed. On exploration the thorax appeared normal, but the abdomen was much swollen, and fixed above the pelvic inlet. The trocar was used, and 550 grams of fluid came away; it was clear, lemon-yellow in colour, and highly albuminous. Then the child was easily extracted. It weighed, excluding the urine already removed, over 6½ lbs., and measured 18½ inches; the biparietal measurement was 3½ inches. It was a female. The distention of the abdomen was due to retention of urine. The cause of the retention could not be detected; there was no malformation, and the urethra was quite free from stricture. The ureters and renal pelvis were dilated. GAUDON, CORNELLI, and LEFOUR have reported similar cases where no stricture existed. In PORAK's case the obstruction was due to a valvular fold in the mucous membrane, which HERGOTT of Nancy suspects must exist in all such cases, but is easy to overlook. As a rule retention of urine is due to complete congenital stricture.—*Brit. Med. Jour.*

Psychoses of the Menopause.

CHAPIN endeavours to show that the danger of insanity beginning during the menopause has been exaggerated. Out of 8,320 women admitted into various institutions, only 188 were specified as becoming insane at the menopause, nor was it clear how many out of the 188 went mad through the special changes in the genital tract at that period of life. The statistics of the Pennsylvania Hospital show that between the ages of 45 and 55, representing the usual range of the menopause, 975 men and only 876 women were admitted into that institution. S. WEIR MITCHELL, in his Analysis of 3,000 cases of melancholia, shows that the exact percentage of cases between the ages of 45 and 50 was 20·2 in men and 21·4 in women, the difference being very, very slight, and once more not due, on any distinct evidence, to the local changes of the menopause. The dread or risk of insanity at the approach of the menopause in a woman ordinarily of sound mental and physical health and inheritance has no better foundation than a popular delusion based on borrowed fears.—*Brit. Med. Jour.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Cerebral Localization.

FROM the paper by SYDNEY KUH, in the *Journal of the American Medical Association*, reviewing the knowledge on this subject, the following points are gathered:—

Destruction of the prefrontal region is said to annihilate the power of directing one's attention entirely when the lesion is bilateral, while a unilateral lesion causes only a transitory mental change. Mental weakness, loss of memory and attention, apathy, and childish behaviour are common symptoms.

That cerebral centres may migrate from one side of the brain to the other was at least made probable by an observation of OPPENHEIM. His patient had been right-handed up to the age of seventeen, when an injury to the right hand compelled her to learn to write with the left one. When at the age of fifty-nine, a tumor developed in the right hemisphere; it caused left hemiparesis with aphasia.

Cerebral hemiplegia, whether it be due to a superficial or a deep-seated lesion, never means a complete paralysis of one-half of the body. Paralysis of cortical origin is flaccid in the beginning and presents late contractures due to secondary degeneration in the pyramidal tracts.

Monoplegias of the leg, which have been bilateral in a large percentage of cases, are explained by the close proximity of the two paracentral lobules.

Similarly, the immunity of the upper branch of the facial nerve in cerebral hemiplegia is given in explanation by the probable control exerted by each centre on both nerves, the muscles so supplied being among those generally used simultaneously on both halves of the body.

Centres for mastication and rotation of the head, located in animals, have not yet been satisfactorily determined in man.

While it may locate cortically the initial centre in true cases of JACKSONIAN epilepsy, not every localized spasm of organic nature may be regarded as conclusively cortical.

Valuable points in determining JACKSONIAN from idiopathic epilepsy are limited spasm at first, loss of consciousness late, if at all, epileptic cry, falling and biting tongue usually absent, post-epileptic coma slight and of short duration, etc.

Proliferation and Phagocytosis.

MALLORY first describes the different phagocytic actions observed from various infections, and in conclusion suggests the question whether the processes he has described are due directly to the action of toxins or reparative. In repair, cells proliferate for definite purposes—to cover denuded surfaces; to replace loss of tissue; form new blood-vessels, etc. The cells, however, which proliferate under the direct action of toxins multiply greatly in excess of need and show lack of definite purpose. They may exert some more or less beneficial action, possibly produce antitoxins, but they must not be regarded as reparative and may do great harm, block up lymphatics, produce necrosis, be carried to the liver as emboli and otherwise interfere with the organic economy. The phagocytic cells are phagocytic beyond all bounds of necessity and destroy great numbers of active, useful cells. They are all abnormal and, to a certain degree, malignant.

Bacteriological Diagnosis of Diphtheria.

DR. J. BRONSTEIN says (*Berlin. klin. Woch.*):—NEUSSER's staining method for the tinctorial differentiation of diphtheria bacilli and bacilli similar to them is not only of value for cultures, but also for smear preparations of diphtheritic membrane. Whenever bacilli containing stained granules were found in the pseudo-membrane, diphtheria bacilli were always found in the cultures made therefrom. It is advisable to stain for a longer time than is recommended by NEUSSER, that is, for half a minute with each of the two solutions. Distilled water is better for washing than ordinary water.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Infection from the Hands of Consumptives.

THE official bulletin of the State Board of Health, Maine, cites several instances in which tuberculous infection may be communicated by the hands. Experiments were made in the Adirondack Sanatorium to determine whether the hands of consumptives carry the bacillus of tuberculosis. The hands of only two out of ten patients in private practice were found free from infection, and those two persons were scrupulously careful by the use of cloths and cuspidors and frequent washing, to keep the hands perfectly clean. Two patients who only used handkerchiefs furnished an abundance of infection. These facts carry their own moral, and this one which may be commended to all who have charge of consumptive patients, or who live in close intercourse with such patients.—*Practitioner.*

Sanitation in the Home.

THE sanitary condition of the farm and country village house is often less carefully attended to than in large towns, because the system of plumbing and drainage compels the housewife in a city or town to live up to certain sanitary requirements, and necessitates a greater familiarity with the subject.

No matter how thoroughly a house and grounds were cleansed in the early spring, if they have not been properly cared for since, August is sure to find it beset with foes from without and within, for, in many respects, August and September are the most dangerous months of the year, and a most thorough inspection of the premises should be made, commencing at the cellar.

If this is dark and damp—and in city houses, where they are little used during the summer, even careful housewives are apt to neglect their ventilation—the foul air will permeate and make unhealthful the entire house. Throw open every door and window. If it was not given a coat of lime-wash in the spring, it should have one now; add to it a pound of copperas (in solution) as a disinfectant. Place open vessels containing copperas or charcoal in every dark corner, and see that the entire cellar is ventilated every day.

Every drain should be properly trapped, and the one connected with the kitchen sink should be provided with a grease-trap. But this does not lessen the housewife's responsibility to see that they are flushed with clear water every day and disinfected with chloride of lime, or scalding hot solution of washing soda, twice a week.

Carbolic acid is a better disinfectant for offal pails and water-closets; use in the proportion of one teaspoonful to a gallon of water. For an outside closet use lime, or dry earth, not sand, a little every day.

Next in importance to the disposition of sewage is that of the vegetable and other kitchen refuse. In large cities this is systematically gathered, and on a farm there are always animals who will eat it. When this is not the case, it should be burned in the kitchen stove, or in a weekly bonfire in the garden, or buried in a deep trench.

As you value the health of your family, never allow a pile of rubbish to accumulate in a corner of the garden, or behind an out-building, unless it is vegetable matter for a compost, and is made harmless by the frequent addition of earth, ashes, lime or copperas.

Never use wooden pails, or other receptacles for kitchen refuse, but galvanized iron, zinc, or tin, and see that they are thoroughly washed, scalded, and sundried at least every alternate day. The city housewife should use galvanized iron cans for garbage, and should sprinkle lime or copperas over the contents every day in hot weather, and thoroughly cleanse the cans whenever they are emptied.

Another frequent source of danger is the soiled clothing which awaits the weekly washing. Instead of being thoroughly aired and dried in the sun, and kept in a room remote from the bed-chambers and living rooms, it is thrown into a hamper kept standing in a bed-chamber, or in a pile in one corner of an adjoining closet, damp with poisonous exhalations from the body, and here the warmth of the room generates and throws off poisonous germs, which are inhaled by the occupants.

Every day the entire clothing should be removed from every bed that has been occupied, and, if possible, hung directly in the sun, the mattress turned, and the windows and blinds thrown open to admit the sun and pure air, and they should remain so at least two hours. In view of the care ordinarily given beds, and the garments worn during the night, one can only wonder that insomnia is not even more prevalent than it is.

Aride from the bed-chambers, every occupied room in a house should be disinfected every day by flooding it with sunshine and pure air. This done, with a clean, sweet cellar, and the attic windows open to give a free sweep of air at the top of the house, the rooms should be sweet, cool, and healthful.

Insurance Examiner's Knowledge of Prior Application.

AN applicant for fraternal benefit insurance, who warranted every statement made by him in his application to be true, stated therein that he had never before applied for membership in that order. The application was approved by the medical examiner-in-chief. But when suit was brought by the beneficiary to recover the insurance, the association set up a breach of warranty, and showed that about five years before the date of the application the insured had made a previous application to a different subordinate branch, and that such application had been rejected by the medical examiner-in-chief. To meet this line of defence, it was argued that the examiner-in-chief at the time he approved the application for the certificate in suit knew, or was chargeable with knowledge, of the prior application and rejection; that his knowledge was to be deemed the knowledge of the association; and that, therefore, the latter, having issued the certificate and received the assessments thereon with full knowledge of facts that would render it void, should not be permitted to defeat a recovery by proving such facts. This view was adopted by the trial court. The third appellate division of the Supreme Court of New York, however, rejects it, and reverses the judgment of the court below rendered in the beneficiary's favor. Even assuming that the medical examiner-in-chief knew, when he approved the second application, the circumstances of the previous transaction, the court holds, *Desmond v. Supreme Council, Catholic Benevolent Legion*, that his knowledge was not chargeable to the association, and that it had the right to avail itself of the defence of breach of warranty. Of course, it is left to be inferred, it might be otherwise, if his action had been more than a preliminary step in the transaction, and if it had been a part of his duty to issue or deliver the certificate.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

Intestinal Rest in Typhoid.

It is an axiomatic principle in both surgery and medicine that a congested or inflamed part needs rest.

The surgeon recognizes this when he immobilizes the fractured bone and retains the fragments in apposition; the physician likewise appreciates the great importance of this principle in cases of gastric ulcer when he feeds his patient by the rectum in order to avoid irritating the inflamed part either directly, or by exciting gastric motility. Although typhoid fever is essentially a systemic disease, its characteristic local lesion is the intestinal ulcer, which should, as far as possible, be kept at rest. Milk, which has heretofore been regarded as the only proper exclusive food, is, as a recent writer says, "not a liquid diet, but a deceptive solid"—capable of filling the small intestine with dense indigestible curds which scratch and irritate the ulcerated bowel, and in addition ferment and cause gaseous distention, tympanites, etc. Liquid peptonoids, on the other hand, is open to none of these objections. Its administration affords rest to the ulcerated intestinal tract, because:

1st.—It is predigested and therefore promptly absorbed from the stomach, leaving no residue for the bowel to dispose of.

2nd.—No curds are formed as from milk.

3rd.—It is absolutely aseptic and cannot cause fermentation, tympanites or increased peristalsis, resulting in diarrhoea.

4th.—It has the requisite nutritive power to maintain life for weeks and even months, especially in febrile conditions.

Another advantage of liquid peptonoids is its palatability, which renders it grateful to the patient, especially when given for food.

From one to two tablespoonfuls every two, three or four hours should be given as necessary. When an efficient intestinal antiseptic is required, as it very frequently is in this disease, liquid peptonoids with cresote provides both food and remedy at one and the same time. The unpleasant taste of the cresote is almost entirely abolished in this combination. Each tablespoonful contains two minims of pure beechwood cresote and one minim of guaiacol, its active principle.

Hypodermic Injections of Campher in Phthisis.

ALEXANDER (*Munch. Med. Woch.*) claims further good results from his method of injecting hypodermically the camphorated oil of the German pharmacopoeia, which contains 0.1 gm. of campher in each cubic centimetre (*Review*). Campher has a cumulative action, and may produce nervous disturbances, especially if pyrexia is present. He now, therefore, employs very small doses. When pyrexia is present, the quantity of oil injected daily should correspond to $\frac{1}{4}$ gr. or at most $\frac{1}{2}$ gr. The treatment can be continued uninterruptedly for weeks or months. In apyretic cases the same treatment may be adopted, or larger doses of campher, such as 1½ gr., may be given daily for four days at a time, and resumed after an interval of at least eight days. Campher given by the mouth causes anorexia, sweating, and cough.

VON CRINGEN (*Berlin. Klin. Woch.*) employed ALEXANDER's method for two years among the out-patients of the district polyclinic at Leipzig. He concludes that the treatment has no influence whatever on early cases of phthisis before the process of ulceration and breaking down has begun. He reaches conclusions which show that in the second stage, contrary to ALEXANDER's statement, the campher tends to induce hæmoptysis. In five cases slight hæmoptysis followed every injection, but did not occur when they were omitted. The injections were, however, useful in advanced cases in which cavities were present. They relieved the general prostration and enabled the patients to do more work. Though ALEXANDER claims that campher relieves insomnia, VON CRINGEN says it has no influence on sleep. Neither has it any sedative effect on pain, dyspnoea, or cough, though night sweats are sometimes lessened by it. The indications for the use of campher are therefore identical with those for the use of balsamic and mucous substances. The contraindications are also identical—renal disease and a tendency to hæmoptysis. The injections are frequently painful.

Value of Rest in Bed in the Treatment of Certain Digestive Disorders.

ALLEN draws attention to the frequency with which anaesthesia, anæmia, and malnutrition are associated, and the great amount of injury to the system at large that may be produced by such a triad. The deficiency in nerve energy and the consequent imperfect innervation of the tissues lead to a general lack of muscular tone, which finds expression in different ways according to the region of the body affected. In the abdomen the general relaxation has for its consequences visceroptosis and stony of the stomach and intestines with their attendant evils, and in proportion as the lack of proper nutrition increases the somatic weakness, the debilitating events move in a vicious circle of greater and greater circumference and constantly involve more remote regions in the disease. Under such conditions the evident indications are rest and feeding. But to be properly effective the patient must completely change his previous faulty mode of life and be treated in a wholly alien environment. As a routine for such cases, at least three weeks of absolute rest in bed, in some institution away from home, is to be advised, together with a full diet, for even though the state of the stomach may seem to contraindicate this over-feeding, in most cases it will relieve the symptoms more quickly than the most carefully adjusted, but quantitatively insufficient, régime. By these means bodily waste of all sorts, nerve and muscle, is reduced to a minimum, and the depleted cells are enabled to regain their normal tone and vigor.—*Zeitschrift für Krankenpflege*.

Indications for the Use of Gastric Lavage.

(1) To remove undigested food and foreign matters; (2) to cleanse the mucous membrane for the action of medicines; (3) to check hæmorrhage; (4) to give antiseptic douchings; (5) for sedative purposes; (6) for general tonic effects upon the gastric mucous membrane and paretics.—DR. J. M. G. CARTER, *Medical Fortnightly*.

For Nutritive Enemas after Abdominal Section.

R. Peptonized milk	...	...	30 c.c.
Whiskey	...	...	"
The white of two eggs	...	...	"
Common table salt	...	...	grs. xxiv.

The rectum should be thoroughly irrigated every morning with warm physiological salt solution, which will keep it clean, so that the nutritive enemas will be better absorbed.—HUNTER ROBB.

For Intestinal Meteorism in Infants.

R. Sodii sulpho-carbolat	...	0.25-0.50 cgm.
Syr. aurantii cort amar	...	5 gm.
Aq. menth. pip dest	...	25 "

M. S. Take a teaspoonful three times a day for two consecutive days.

—FLETCHER ISAACS.

For Painful Pharyngitis.

R. Morph. sulphat	...	0.20 cgm.
Acidi carbol.	...	"
Tannin	...	as 2 gm.
Glycerin	...	"
Aq. destil	...	as 15 "

M. S. Apply to the throat.

—FLETCHER ISAACS.

Spray for a Room Occupied by a Convalescent.

Fresh ventilation should be used in addition.

R. Guaiacol	...	...	3j.
Eucalyptol	...	...	3ij.
Menthol	...	...	℥.
Thymol	...	...	3ss.
Ol. gaulther	...	...	3viij.
Aq. menth. pip	...	...	qs. ad. ℥. ij.

—DR. O. F. BARNES, *Register Medical Victoria*.

Correspondence.

PURE DRINKING WATER.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—There is no lack of beliefs and traditions in India about water, showing that the people have thought about it and do believe in different qualities possessed by water that may be beneficial or otherwise. But unfortunately their ideas are mostly wrong, and they cause infinite mischief at times to the people.

Water from the sacred rivers—Ganges, Jumna, Godavari, and others—are reported to remain sweet when bottled for an indefinite period. This is an excellent test even if it lasts only a few days; but although it may have been true at some remote period, it cannot be true now, as these rivers receive the sewage of every town on their banks, and in the dry season the water of the Ganges below Cawnpore smells strongly of sewage that is discharged by two large and very foul sewers. It is open to any one to bottle some of this water for a week by way of experiment, but nobody does it—unless he be a sanitary official.

There is a current tradition that living (flowing) water purifies itself, however foul it may be. This is a half truth that is very misleading. A river will purify itself of sewage, but only after many miles of flow, but those people who bathe in a stream in which putrifying corpses lie only a few yards away above them, and who wash their mouths and even drink the water, should not be surprised if they are ill afterwards. There are hot springs in various parts of this country renowned for their curative properties, and there are wells in many places whose water is said to be better and more wholesome than other water; but the numerous devices the Indians have for defiling their sources of water-supply may be taken as a proof of a national indifference to really pure water. There are many wells in Guzerat that have each cost a lakh and upwards of rupees, approached by magnificent flights of steps, and decorated story after story downward with elaborate stone carvings. These wells have springs at a depth which should give perfect water-supplies, were it not that the men and women descend the steps with bare feet that have traversed streets and alleys, and after taking their supply of water they wash their feet and mouths and even spit in the water. When it rains, all the accumulated dirt on the steps is washed into the well, forming in course of years a deposit of very unwholesome mud at the bottom. Now and then a woman will drown herself in the well, but no cleansing process follows after the removal of the body.

The belief that wells should be open to the sun and air has much to answer for, and offers a very striking

commentary on a people who claim to have produced so many profound thinkers. In hill districts, where water issues from holes in the hillside, everyone knows that the best and cleanest water is to be had just where the water issues from the earth. If the spring is at the bottom of a well, the same rule ought to hold good; but, on the contrary, an opposite opinion prevails. The water is allowed every opportunity of defilement before it is drawn from the well. Trees overhang it and drop in sticks and leaves. Birds build their nests in crevices and add to the defilement. The wind blows dust of all kinds into the well, and the cords and vessels used by the people to draw their supplies are liable to many kinds of infection. No public drinking well in India can be safe from becoming a source of infection of cholera. It all depends on the chance of a single infected vessel or rope being dipped once in the water. Nothing but centuries of habit could reconcile any people to the habit of drinking water from a tank that is daily used for bathing by cattle and by men, as such is the case all over India. If this water is filtered, the process is only a mechanical one that does not touch the dissolved impurities. A rag (not always clean) and a layer of sand will only separate soiled matter. Occasionally chunks of wool about the size of the size of rod metal. These are quite useless, as the water passes between them and remains unaffected. Even if a European filter be used by the educated native, it will be generally found out of order and badly in need of a new charge. The Indian hotel-keeper always has a filter, and it is generally a fraud. Last May one hotel at Mahabeshwar had a filter through which water was daily passed for consumption. A visitor observing the very bad state of the drinking water insisted on seeing the inside of this filter. He found the carbon block lying loose in the upper chamber; the plug had been lost. In another hotel the English filter was filled with lumps of charcoal from the kitchen. A third hotel had excellent filters which were always in good order, but the Bishop's Well, the best reputed source of domestic supply on the hill, was in a shocking condition. The sand filter seemed not to have been cleaned since it was built.

All over India the intelligent observer may see examples of wanton neglect of precautions, which, if taken, would ensure a much more wholesome water-supply. The Muhammadan conquerors were much more careful in the construction of their wells than the Hindus, but as they had a habit of constructing deep cesspits in the vicinity of their wells, contamination from below neutralised all the precautions they took to keep the mouth of their wells closed. Ahmedabad, until the water-works were constructed, depended to a large

extent on wells that were contaminated with sewage. Although the natives of India are so reckless in allowing their source of drinking water to be polluted, they are continually using precautions to protect themselves from impurity. No trouble is too great in carrying out this duty. There are many reasons to suppose that in knowledge of practical hygiene the Indians have degenerated during recent centuries as they have in the industrial and the fine arts. Their customs of frequent bathing, the tradition that running water purifies itself, their precautions regarding their food, their mode of raising water from wells economically, all appear to date from a period of enlightenment that is now forgotten. It is therefore not a question of introducing new and foreign habits, but rather of returning to old and good customs of practical cleanliness that we advocate—customs that will commend themselves to all intelligent men, and will reduce the high death-rate that prevails generally in India.

Yours, etc.,

SANITARY ENGINEER.

THE INEFFICIENCY OF THE INDIAN MEDICAL SERVICE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—As a civilian medical practitioner of many years' experience in India, it appears to me that in it you have undoubtedly hit the right nail on the head when you suggest that apparently the only remedy is to separate the Civil from the Military branches of that service. Presumably, when men join the Indian Medical Service, they do so as Army surgeons, but as soon as they can possibly do so, they, for obvious reasons, take up civil work. Now, Sir, the question comes to be—is this the best training these men can get for work at the front? I fear not, as the majority of them, when they become civil surgeons, almost forget the fact that they are military men, and simply become civil practitioners, this being more particularly the case in the mofussil; and when in cases of emergency they are called back to military service, they must, I should imagine, feel like fish out of water. I believe the only remedy for this would be to form a separate Civil Medical Service for India, and confine the attention of the members of the Indian Medical Service to military work. The idea of bringing out medical men from home to act temporarily during these emergencies is not, I think, by any means a good one, as the terms offered by Government to men to fill these temporary appointments are quite inadequate to tempt good men to come out and fill them; and, added to this, there is the extremely unsettling effect a residence of a year or two in India has

on a man, especially a medical man. If, on the other hand, a new Civil Medical Service were formed, with a pension attached after a certain number of years' service, I am perfectly convinced that Government would have no difficulty in getting the right sort of men to join, as many who would object to joining the Indian Medical Service, on account of its being a military service, would join the service I suggest. Another point to be noticed in this connection is that, if the members of the I. M. S. were forbidden to take up private practice, numbers of private practitioners would set up on their own account in the large towns in India—as indeed a large number have already done. Judging from what we hear of the frightful congestion in the medical profession at home, and the enormous number of men who are year by year passing out from the various medical schools, I can't imagine there would be much difficulty in recruiting both the Indian Medical Service and the new service I suggest. The only other alternative would be to double the strength of the present I. M. S., which, I imagine, would be a very much more costly matter than establishing a new service on the lines I suggested.

Yours, &c.,
ÆSCULAPIUS.

DEALERS AND BUYERS OF BOGUS AMERICAN DIPLOMAS: ANOTHER EXPOSURE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your thorough exposure of the bogus American degrees in the *Indian Medical Record* is highly interesting. I can give you some information in this connection which may be useful to you. Babu BHUBAN MOHAN BANERJI, M. A., LL. D., the successful agent of the "Western University," is a translator in the Original Side of the Calcutta High Court. He lives in Bhoom Ghose's Lane, off Cornwallis Street. He has a brother—MAHENDRA NATH BANERJI—a man without any education, general or medical. This is Dr. M. N. BANERJI, M. D., the "consulting physician" attached to a dispensary named "Hahnemann's Home," in College Street at Bowbazar. He goes about in European dress and imposes on the credulous as a real medical man. Both the astute brothers are holders of American degrees.

It may interest you to know that the bogus degrees are not confined to the medical profession. A pleader of the Calcutta High Court, Babu SURENDRA NATH GHOSAL, residing at Bhowanipore, has recently imported an American degree in Law, LL. D., purporting to be from "Universitas Occidentalis." It is significant that this man is a relative of the brothers BANERJI.

In any investigation which you may be advised to make, I shall be ever ready to render you every assistance that lies in my power.

Yours, &c.,
ENQUIRER.

(We have already forwarded this information officially to the Commissioner of Police, and we trust that excellent official will do his duty in this matter.—ED., I. M. R.)

Government Medical Gazettes.

BENGAL.

Asst. Surgn. Akshoy Kumar Mukherjee did suppy. duty at the Dacca Mitford Hosp. from the 12th to the 23rd Nov. 1900.

Asst. Surgn. Akshoy Kumar Mukherjee's apptd. to act at the Meherpur Subdivn. and Dispy., in the Nadia dist., from the 25th Nov. 1900, during the absence, on leave, of Asst. Surgn. Kristo Charan Bose.

Asst. Surgn. Abinash Chandra Bandyopadhyay is apptd. tempy. to the Cholera Emigration Hosp. at Nalhati from the 18th Nov. 1900.

Asst. Surgn. Abinash Chandra Bandyopadhyay did suppy. duty at the Med. Col. Hosp., Calcutta, from the 27th Oct. to the 11th Nov. 1900.

The services of Lieut.-Col. R. N. Campbell, M.B., I.M.S. (Bengal), are placed at the disposal of the Govt. of Bengal.

The services of the undermentioned offrs. are placed tempy. at the disposal of the Milly. Dept. :—

Maj. Narendra Prasanna Sinha, I.M.S. (Bengal); Maj. R. J. Marks, I.M.S. (Bengal); Capt. H. Ainsworth, M.B., I.M.S. (Bengal); Capt. A. N. Fleming, M.B., I.M.S. (Madras); Lieut. J. L. Marjoribanks, M.B., I.M.S.

On relinquishing ch. of the civil med. duties of the Amritsar Dist., Capt. A. W. T. Buist, I.M.S., Civil Surgn., is posted to Gurdaspur as Plague Med. Offr. from the 16th Nov. 1900.

Asst. Surgn. Thakur Kedar Nath, in ch. of the Munaffargarh Dispy., officiated as Civil Surgn. of that sta., in addn. to his own duties, from the 8th to the 15th Nov. 1900.

Asst. Surgn. Hira Lal (1), in ch. of the Delhi Civil Hosp., is apptd. to officiate as Civil Surgn. of Munaffargarh from the 15th Nov. 1900, *vice* Asst. Surgn. Thakur Kedar Nath.

Lieut.-Col. R. Blood, R. A. M. C., to officiate on the Administrative Med. Staff of the Army, with the tempy. rank of Col., *vice* Col. O. A. Maunsell, M.D., R. A. M. C., retired.

PUNJAB.

Hosp. Asst. Mussaddi Mal, doing gen. duty at Hissar, was apptd. on itinerant duty in that dist. from the 16th Oct. 1900, *vice* 3rd Class Hosp. Asst. Sheikh Ahmad, who was placed on gen. duty at Hissar from the same date up to the 31st Oct. 1900, when he retired from the service.

Hosp. Asst. Brij Lal, doing gen. duty at Hissar, was apptd. on itinerant duty in that dist. from the 1st Nov. 1900, *vice* 1st Class Hosp. Asst. Mussaddi Mal, who was permitted to retire from the service.

On being relieved of the tempy. ch. of the Bewari Dispy., Gurgaon Dist., Asst. Surgn. Parmansand was placed on gen. duty at Delhi on the 14th Nov. 1900.

Hosp. Asst. Ali Ahmad was apptd. to do gen. duty at Jullundur on the 14th Nov. 1900.

Hosp. Asst. Karam Chand, Punjab Luthatic Asylum Hosp., has obtained one month's privilege leave, and was relieved of his duties on the 4th Nov. 1900 by Hosp. Asst. Bansil Lal, doing gen. duty at Lahore.

On being relieved of his duties on the Chenab Canal, Lyallpur Divn., Hosp. Asst. Iram Din was apptd. to the ch. of the Tochi Valley Dispy., Miranshah, on the 23rd Oct. 1900, *vice* Hosp. Asst. Aulad Hussain, who was granted one month's privilege leave.

Hosp. Asst. Diwan Chand, doing gen. duty at Umballa, was apptd. to the ch. of the Mooltan-Sidhnai Canal Dispy., Kakharhatti, from the 24th Oct. 1900, *vice* Hosp. Asst. Thandee Ram, who was placed under suspension from the 21st Oct. 1900.

Hosp. Asst. Thandee Ram, under suspension, was dismissed from the service of Govt. from the 14th Nov. 1900.

Hosp. Asst. Sheikh Abdullah Travelling Hosp. Asst., N.W. Ry., Lahore Sec., was granted one month's privilege leave from the 1st Oct. 1900.

Hosp. Asst. Sheikh Abdullah rejoined his duties on the N.W. Ry., Lahore Sec., on the 31st Oct. 1900, relieving Hosp. Asst. Kale Khan.

On being relieved of the ch. of the Gobana Dispy., Rohtak Dist., Hosp. Asst. Muzraiz Khan was transferred to the Upper Sutlej Inundation Canal from the 23rd Sept. 1900, and relieved Hosp. Asst. Khada Baksh on the 30th Sept. 1900.

Asst. Surgn. Ramji Lal, doing gen. duty at the Mayo Hosp., Lahore, was transferred to the ch. of the Hissar Dispy. on the 18th Nov. 1900, relieving tempy. Asst. Surgn. Thakur Das.

1st Class Hosp. Asst. Kale Khan, doing gen. duty at Wazirabad, Gujranwala Dist., was transferred to Lahore for gen. duty on the 18th Nov. 1900.

Asst. Surgn. Abdul Aziz was apptd. to do gen. duty at Amritsar from the 6th Oct. 1900.

Asst. Surgn. Jugal Kishore was apptd. to do gen. duty at the Bupar Dispy., Umballa Dist., on the 11th Oct. 1900.

Asst. Surgn. Jugal Kishore, doing gen. duty at the Bupar Dispy., Umballa Dist., was apptd. to the ch. of that institution from the 18th Oct. 1900, relieving Asst. Surgn. Mala Ram.

Hosp. Asst. Zulficar, Ajnala Dispy., Amritsar Dist., has obtained privilege leave for three months, and was relieved of his duties on the 15th Nov. 1900 by Hosp. Asst. Muhammad Shafi, transferred from gen. duty, Amritsar.

Hosp. Asst. Baber Khan, doing gen. duty at Umballa, was apptd. to the ch. of the Jail Hosp., Amritsar, on the 12th Oct. 1900, *vice* Hosp. Asst. Abdulla Khan, who was granted privilege leave for 25 days from the 1st Oct. 1900.

Hosp. Asst. Abdulla Khan rejoined the Jail Hosp., Amritsar, on the 25th Oct. 1900, relieving Hosp. Asst. Baber Khan, who was placed on gen. duty at that sta.

On the termination of his itinerant duty in the Jullundur Dist., Hosp. Asst. Bindraban was placed on gen. duty at the Civil Hosp., Jullundur, on the 16th Nov. 1900.

Asst. Surgn. Maya Das held ch. of the current duties of Supdt. of the Mooltan Dist. Jail from the 6th to the 15th Nov. 1900, both days inclusive, during the absence of Maj. D. M. Davidson, M.D., I. M. S., on inspection duty in the dist.

Capt. A. W. T. Buist, I. M. S., made over ch. of the duties of Supdt. of the Amritsar Jail to Senior Asst. Surgn. Mehr Chand, Rai Bahadur, on the 12th Nov. 1900.

Senior Asst. Surgn. Mehr Chand, Rai Bahadur, made over ch. of the duties of Supdt. of the Amritsar Jail to Lieut.-Col. T. R. Mulroney, M.D., I. M. S., on the 18th Nov. 1900.

Capt. C. H. James, I. M. S., made over ch. of the duties of Supdt. of the Umballa Jail to Asst. Surgn. Krishen Chand on the 20th Nov. 1900.

The undermentioned gentleman is apptd. a non-official visitor of the Sialkot Jail, *vice* Sardar Udharn Singh Chhabbi, who has left the station :—

Mr. Joseph Greenwood, Secretary, Dist. Board, Sialkot.

Capt. J. Stephenson, I. M. S., made over ch. of the duties of Supdt. of the Peshawar Jail to Lieut. W. H. C. Forster, I. M. S., on the 29th Aug. 1900.

Lieut. W. H. C. Forster, I. M. S., made over ch. of the duties of Supdt. of the Peshawar Jail to Lieut. W. J. Keen, B.C.S., Asst. Commr., on the 4th Sept. 1900.

Consequent on his return from furlough on med. certificate, Lieut.-Col. T. R. Mulroney, I. M. S., Civil Surgn., 2nd class, is promoted to the 1st class with effect from the 13th Nov. 1900, and Lieut.-Col. S. Little, I. M. S., Civil Surgn., 1st class, is reverted to the 2nd class.

On return from privilege leave Lieut. J. F. Weston, Senior Asst. Surgn., resumed ch. of the duties of Civil Surgn., Hissar, on the 8th Decem. 1900, relieving Asst. Surgn. Jowahir Singh.

Asst. Surgn. Feroz-ud-din, doing gen. duty at the Ferozepore Civil Hosp., was apptd. as a tempy. arrangement to the ch. of the Umballa Civil Hosp. on the 22nd Nov. 1900, relieving Asst. Surgn. Krishen Chand.

Asst. Surgn. Muhammad Hussain did gen. duty at the Mayo Hospital, Lahore, from the 28th Sept. to the 3rd Oct. 1900.

The services of Hosp. Asst. Abdul Wahab Soffy, doing gen. duty at Karnal, were placed at the disposal of the Govt. of India, Foreign Dept., for employment in the Somali Coast Protectorate from the 21st Nov. 1900.

On being relieved of the ch. of the Rohtak Dispy., Hosp. Asst. Bukn-ud-din was transferred to Ludhiana for gen. duty on the 30th Oct. 1900.

Hosp. Asst. Baka-ud-din, doing gen. duty at Ludhiana, was apptd. to the ch. of the Ludhiana Police Hosp. from the 18th Nov. 1900, relieving Hosp. Asst. Feroze-ud-din, who reverted to gen. duty in the Ludhiana Jail.

Asst. Surgn. Khazan Chand resumed ch. of the Civil Hosp., Sialkot, on the 23rd Nov. 1900, relieving Asst. Surgn. Abdul Aziz, who was placed on gen. duty at that institution.

On being relieved of the tempy. ch. of the Khewra Dispy., Jhelum Dist., Hosp. Asst. Baber Khan reverted to gen. duty, Amritsar, on the 10th Nov. 1900.

Hosp. Asst. Baber Khan, doing gen. duty at Amritsar, was granted two months' privilege leave from the 12th Nov. 1900.

Asst. Surgn. Umrao Raja Lal, doing gen. duty at Karnal, was granted one month's privilege leave from the 18th Nov. 1900.

Hosp. Asst. Hara-ud-din, doing cholera duty in the Dera Ghazi Khan Dist., was apptd. to the Lalgarh Dispy. in the same dist. on the 13th Nov. 1900, relieving Hosp. Asst. Sham Lal.

On being relieved of the ch. of the Lalgarh Dispy., Dera Ghazi Khan Dist., Hosp. Asst. Sham Lal reverted to the ch. of the Police Hosp., Dera Ghazi Khan, on the 20th Nov. 1900, relieving Hosp. Asst. Vasu Ram, Dera Ghazi Khan Jail Hosp., of the additional ch.

On being relieved of the ch. of the Ludhiana Civil Hosp., Asst. Surgn. Udal Bhan, Imperial List, was deputed tempy. for plague duty in the Jullundur Dist. on the 19th Nov. 1900.

Hosp. Asst. Imam-ud-din resumed ch. of the Attock Dispy., Hazara Dist., and med. ch. of the Look-up, on the 28th Nov. 1900, relieving Hosp. Asst. Jaggan Nath.

The undermentioned Hosp. Assts. were transferred for special plague duty in the Gurdaspur Dist. from the stns. and on the dates noted against their names:—

Amar Singh, cholera duty, Gurdaspur Dist., 31st Oct.; Sultan Ali, gen. duty, Batala, 4th Nov.; Harbhagwan Das, plague duty, Jullundur Dist., 18th Nov.; Muhammad Rafik, plague duty, Jullundur Dist., 18th Nov.; Goverdhan Das, plague duty, Jullundur Dist., 18th Nov. 1900.

The following Asst. Surgns. were transferred for special plague duty in the Gurdaspur Dist. from the stns. and on the dates noted against their names:—

Vidy Nath Singh, plague duty, Jullundur Dist., 14th Nov.; Tempy. Asst. Surgn. Thakur Das, Hissar Dispy., 20th Nov. 1900.

Hosp. Asst. Feroze-ud-din, doing gen. duty at the Ludhiana Jail, was apptd. as a tempy. measure to the ch. of the Ludhiana Police Hosp. on the 14th Nov. 1900, relieving Hosp. Asst. Abdul Rahman.

The following Hosp. Assts. were transferred for plague duty in the Jullundur Dist. from the stns. and on the dates noted against their names:—

Abdul Rahman, Police Hosp., Ludhiana, 15th Nov.; Permeshri Das, gen. duty, Jullundur, 21st Nov.; Lekh Nath, gen. duty, Shahpur, 22nd Nov. 1900.

Hosp. Asst. Faqir Chand, doing gen. duty at Gujrat, was placed under suspension without allowances for the 1st and 2nd Nov. 1900. He was released from suspension from the latter date and placed on gen. duty at Gujrat.

On the termination of his special plague duty in the Jullundur Dist., Hosp. Asst. Asa Ram reverted to the Montgomery Dist., and was apptd. to the ch. of the Shah Niwaz Dispy. on the 30th July 1900.

Hosp. Asst. Shankar Das, doing gen. duty at Shahpur, was transferred to the Jhelum Canal on the 12th Nov. 1900, and relieved Hosp. Asst. Ghulam Hussain of the Canal Dispy., Ala, on the 15th Nov. 1900.

Hosp. Asst. Ghulam Hussain was granted privilege leave for two months from the latter date.

Hosp. Asst. Hovan Das resumed ch. of the Shabkadr Dispy., Ferozepur Dist., on the 4th Dec. 1900, relieving Hosp. Asst. Nawab Ali.

Hosp. Asst. Abdulla Khan, Arnauli Dispy., Karnal Dist., was placed under suspension, without allowances, from the 2nd to 21st Nov. 1900. He was released from suspension on the latter date, when he rejoined his dispy.

The services of Hosp. Asst. Abdul Hamid being no longer required for itinerant duty in the Umballa City, he was placed on gen. duty at the Civil Hosp., Umballa, on the 7th Dec. 1900.

Hosp. Asst. Ghulam Haider, doing gen. duty at Jhelum, was apptd. to do gen. duty at Rawalpindi from the 5th Dec. 1900.

Hosp. Asst. Mirza Imdad Beg, Police Hosp., Rawalpindi, has obtained three months' privilege leave, and was relieved of his duties on the 9th Dec. 1900 by Hosp. Asst. Ghulam Haider, doing gen. duty at Rawalpindi.

Hosp. Asst. Wasfi Ibrahim did gen. duty at the Simla Jail Hosp. from the 27th Sept. to the 5th Oct. 1900.

Asst. Surgn. Jogendra Nath Biswas, in med. ch. of the Native Establishments attached to the Govt. of India Secretariate, Simla, was granted three months' privilege leave from the 6th Dec. 1900.

Asst. Surgn. Asghar Ali resumed ch. of the Chinist Dispy., Jhang Dist., on the 17th Nov. 1900, relieving Tempy. Asst. Surgn. Uttam Chand.

Hosp. Asst. Aulad Hussain, doing gen. duty at Sialkot, was placed on plague duty in the Sialkot and Gurdaspur Dist., from the 8th Dec. 1900.

Hosp. Asst. Kale Khan, at present attached to the Hoshiarpur Police Hosp., was reduced to the 2nd class of Hosp. Asst. from the 1st Sept. to the 3rd Dec. 1900.

BOMBAY.

The Governor in Council is pleased to appoint Dr. E. H. Moore, on relief of his duties as Dist. Med. Offr., Khandesh, to be Dist. Med. Offr. under the Famine Code for the dist. of Bijapur.

Asst. Surgn. Ramchandra Shivaji Poredi, L. M. & S., has been apptd. to the med. ch. of the Malegaon Dispy. from the 5th Dec. 1900.

Asst. Surgn. Rastamji Jamshedji Petigara, L. M. & S., has been apptd. Teacher in the Med. School, Hyderabad, from the 2nd Dec. 1900.

BURMA.

Asst. Surgn. F. X. DeAttaides having qualified himself for promotion to the next higher grade, is entitled to the pay and allowances of the 1st grade from the 2nd June 1901.

The following Hosp. Assts. having qualified for promotion to the next higher grade, are entitled to the pay and allowances of that grade from the date noted against them:—

Hosp. Asst. Kutbuddin—promoted to 1st grade from the 15th April 1901; Hosp. Asst. Shaik Abdul Aziz—promoted to second grade from the 4th August 1901.

Hosp. Asst. Daulat Ram availed himself of the leave granted him from the 30th Nov. 1900.

The leave granted to Hosp. Asst. Mazhar Ally is commuted into leave on med. certificate and further extended by two months.

Hosp. Asst. S. Bastian relinquished ch. at the Police Hosp., Kundat, Upper Chindwin dist., on the 31st Oct. 1900, and assumed ch. at the Police Hosp., Falam, Chin Hills, on the 15th Nov. 1900.

Hosp. Assts. Naziruddin Ahmed and Abdul Karim assumed ch. at the Police Hosp., Bhamo, on the 5th Dec. 1900.

Hosp. Asst. Hem Chandra Koyal relinquished ch. at the Police Hosp., Bhamo, on the 4th Dec. 1900, and assumed ch. at the Outpost Hosp., Warabum, Bhamo dist., on the 8th Dec. 1900.

Hosp. Asst. Andrew Po Saw assumed ch. at the Civil Dispy., Yenangyaung, Magwe dist., on the 5th Dec. 1900.

Hosp. Asst. A. B. Mukerji relinquished ch. of his duties with the Bassein-Henzada Ry. Construction at Bassein on the 5th Nov. 1900, and assumed ch. at the Outpost Hosp., Nampaung, Bhamo dist., on the 19th Nov. 1900.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

WHITEHOUSE.—At 28, Gillespie Crescent, Edinburgh, on the 8th December, the wife of John Whitehouse, M. B., C. M., formerly Medical Missionary of Scotch Presbyterian Church in Rajputana, of a daughter.

ORIGINAL ARTICLES.

METHODS OF TEACHING GYNÆCOLOGY.

BY HOWARD A. KELLY, M.D.,

Baltimore, Md., U.S.A.

Professor of Gynecology in the Johns Hopkins University.

THE question as to the best methods of teaching any particular branch of our art is always one of burning interest, which should command the serious attention of teachers everywhere. Such a topic is also especially timely at this juncture, inasmuch as while, on the one hand, gynecology has now been taught regularly in various schools for a quarter of a century or more, and the methods of teaching gynecology have largely settled into well-defined rut, on the other hand the evolution of scientific pedagogy has in the same period taken remarkable strides. It behoves all teachers, therefore, to question their systems and to decide whether they are really advancing on the best lines, in accord with what is recognised as good teaching in schools and colleges.

I believe that gynecology is, as a rule, very badly taught, and the medical student gains but little from this part of his course. This fact would be evident at once to anyone familiar with thorough scientific methods of teaching employed in other departments; but, unfortunately, the object-lessons of this sort in America are still few and far between.

Before we can decide what are the best methods of teaching gynecology, we must consider a few of the difficulties in the way of securing anything like a consensus of opinion among the teachers.

And the first of these difficulties lies in the fact that so many schools have reorganised their plans of instruction in extending the two-year course to one of three years, and others the three-year course to four.

Advanced as the University of Pennsylvania has ever been in the lines of medical instruction, my own class was the first which graduated as a class with three years of compulsory study. As a rule, the professor of gynecology, continuing on from the old system into the new, made no corresponding change in his method of teaching to meet the altered conditions.

Another even more serious difficulty, and one which will, I believe, in the end swamp gynecology as a specialty in the sense in which it has been practised, is the encroachments of the general surgeon in the field of abdominal surgery, leaving the gynecologist no particular settled ground which he can consider as peculiarly his own. It is foreign to my purpose to consider this question here, or to assume the prophetic role; but I may briefly state my conviction that the unification of surgery brought about by the general adoption of the principles of asepsis leaves the barrier between general surgery and gynecology a purely artificial one, and one which must inevitably, sooner or later, be broken down. My advice, therefore, to all gynecologists is to study general surgery and become general surgeons first.

Three classes of men come to me for instruction in gynecology, and I feel obliged to provide to the best of my ability for each. They are:—

I. Students preparing for graduation.

II. Post-graduate students re-visiting schools for better equipment.

III. Graduates desiring to become specialists.

1. Students preparing to take the degree of Doctor of Medicine. How much should a student know at graduation? or how little may he know?

I think the tendency of most of our schools is to give entirely too much instruction in this purely special branch. One year's instruction is ample, even in a course graduated to extend over four years. This leaves the student free to devote more time to the fundamental branches and laboratory courses in general medicine and in the principles of surgery.

But few students ever become gynecologists, and it is a waste of valuable time to treat the whole class as if they were working with this end in view. I shall refer later to the training necessary to build up a specialist.

In the last year, when medical specialties are taken up in the natural order after a thorough preliminary training in the fundamental branches, from three to four hours a week may be devoted to the class in gynecology, divided as follows:—

1. History-taking and ward work, attending to dressings and removing sutures, and studying the sequels of operations, the convalescence.

2. A touch course once a week in which gynecological diagnosis is taught with the patient preferably under anaesthesia.

3. An hour a week in the pathological laboratory studying scrapings and cultures and examining gross specimens.

4. Watching gynecological operations, the class divided into small sections.

5. Lectures.

I think the day for teaching gynecology by performing operations in an amphitheatre before a large class of students has long since gone by. The students see practically nothing of what is going on, absolutely nothing in a deep, abdominal, or vaginal operation, and their very presence is a serious menace to the life of a patient.

The history taking, the ward work, the touch course, all of which demand personal instruction, are the most valuable methods, bringing student and patient together, as they must meet in the natural course of events after graduation, and carrying the student up to the point beyond which he will not be apt to go, that is, up to the point of deciding upon the line of surgical treatment to be followed.

It must be borne in mind that, with our present conception, gynecology is essentially a surgical specialty, and making a diagnosis of a gynecological affection means, as a rule, an operation, while, with the vaguer methods of diagnosis of our predecessors, the very uncertainty allowed delay for weeks or months, during which time all sorts of so-called palliatives were employed—a line of treatment easily carried out by the general practitioner. I well remember the first instructions I had in a special course, when all I learned was

to give the woman much pain by the examination, and to paint the vault of the vagina with CHURCHILL'S dis-
 ture of iodine in one case, and the next woman, without
 rhyme or reason for the change, with a carbolic acid
 and chloral mixture, and so on *ad infinitum*, completing
 each treatment with a ball of absorbent cotton. Many
 were the cases of "cellulitis" which owed their origin
 to such a course of treatment, associated with "intra-
 uterine applications."

I cannot dismiss the touch course without urging
 that the number who make the examination should be
 limited to several working under the watchful eye of
 the teacher, lest harm be done.

The early recognition of cancer as taught by the study
 of endometrial and cervical scrapings in the laboratory
 (perhaps the most important function of the teacher
 of gynecology) constitutes a leading feature in my
 own teaching as ably conducted by Dr. THOMAS S. CULLEN.

The use made of the lecture-room should depend
 upon the lecturer; if he is an inspiring teacher, who well
 comprehends the modern definition of a teacher, not as
 one who talks volubly, but as "one who causes another to
 know," he may make his lectures, associated with demon-
 strations and specimens, diagrams and lantern-slides, a
 great attraction to the students. If he is a poor, dry
 talker, he would better relegate this part of his work to a
 good quiz master, and confine himself to the more practical
 lines of teaching.

"Seeing operations," especially the major gynecologi-
 cal operations, is perhaps the most abused of all methods
 of teaching. It is utterly useless for the student to see
 over and over again a hysterectomy or an ovariectomy
 which he will never do himself, and which, if he did
 attempt to do, it would be of but slight service in mak-
 ing him a safe operator. What he most needs to see
 repeatedly are the various minor operations which he
 may have to do, such as curettage and suture of the
 relaxed vaginal outlet.

It may be more convenient and profitable to divide the
 class into small sections, and to double or even treble the
 amount of instruction in a given space of time. This
 involves repetition with each succeeding group, but it
 saturates the students for the time being with the sub-
 ject and brings them individually closer to their work.

II. The plan of teaching for post-graduates must, as
 far as practicable, imitate the laboratory methods so
 widely used in other departments. Lecturing must be
 subordinated to demonstrations *in anima vivâ*. The place
 of the lecture is a short informal talk about topics with
 which the hearers are not likely to be familiar, which are
 about to be demonstrated in practice.

The operator will then do well as he goes along in
 his practical work at the operating table if he remem-
 bers the needs of the by-standers and tells them from
 time to time precisely what he is doing, and his reasons
 for doing it.

I do not consider it right, in the interests of the
 patient, to utilize men who enter a clinic for a few weeks
 only as assistants in important operations.

Unfortunately, too, for the same reason (the patient's
 rights), only a limited number can be allowed to examine
 the patient beforehand. The surgeon must try to sup-
 ply this want as far as possible by giving graphically
 both the history and results of his own examination.

A great need which we feel most keenly in this country
 is that of female cadavers enough to supply the demand
 for special dissections and for demonstrating operations
 to both students and post-graduates. An abundant sup-
 ply of such material would greatly enrich our teaching
 facilities.

It is my own custom to receive post-graduates as on-
 lookers at any time in the course, and for any period,
 to provide for them abundant demonstrations of the
 various gynecological operations, and an opportunity to
 study scrapings in the pathological laboratory.

III. I come now finally to a class which I think has
 not yet received sufficient attention in other clinics—
 a class, however, which I am personally inclined to
 regard as really the most important of all to us teachers,
 that is to say, those men who are to be built up to
 become specialists in gynecology. In order to train a
 man this way, the chief must be careful to select men
 who have real surgical ability; he must keep them for
 periods of from four to six or even eight years; they
 must receive exceptional opportunities in the operating-
 room (some of my assistants perform upwards of two
 hundred abdominal operations while acting as first and
 second assistants in the hospital). The chief must treat
 his capable men with the utmost generosity in this particu-
 lar.

He must further supervise the development of a good
 man in his laboratory work, in his ward work, and in his
 teaching, and finally often end by sending him abroad to
 give him that assurance in his own powers which often
 only comes after witnessing the work of others. One
 of the greatest pleasures of my life has come from the
 association through a period of years, with just such men
 who have afterwards gone elsewhere to render distin-
 guished services.

The man who in this way looks not only to his own
 success, but endeavors to stimulate and to develop others,
 much as he would himself have wished to have been
 treated early in his career, will not only command the
 respect of his own generation, but will surely be reckoned
 by the men who follow him among those who have done
 the most to promote the best interests of his specialty.

The following is a summary of the course in gynecology
 as conducted for under-graduates in the John Hopkins
 University and Hospital.

At the Johns Hopkins Medical School the fourth-year
 class is divided into four sections, each of which devotes
 a large portion of its time for two months in turn to
 practical work in medicine, surgery, gynecology, and
 obstetrics, while in all those subjects lectures and quizzes
 are given to the whole class throughout the year.

The graduating class of last June numbered about 40.

The instruction in gynecology during the university
 year 1899-1900 was conducted as follows:—

Lectures.—In gynaecology, two didactic lectures were delivered each week to the fourth-year students. Dr. KELLY lectured once a week, and Dr. RUSSELL once, and between them the whole range of the subject was gone over.

The lectures were illustrated by blackboard sketches, diagrams, pathological specimens, and, whenever practicable, by the demonstration of cases. Quizzes were occasionally substituted for the lectures, in order that the instructors might keep informed as to the students' progress.

Clinics.—Dr. KELLY operated three days a week throughout the year, and Dr. RUSSELL one day.

The operating room was open to as many of the class as cared to attend, and the gynaecological section was required to be present.

Before and during the operation the cases were discussed, opportunity given for a limited number of the students to make examinations under ether, and so arrive at their own diagnosis.

Special care was taken to impress the students during the operation with the importance of careful aseptic technique.

Ward Work.—To each member of the gynaecological group several cases in the public wards were assigned during their two months' service.

The students took the histories of these cases, made the examinations under the supervision of the resident, witnessed the operation, and followed the after-treatment progress of their cases.

Rounds were made with the gynaecological group by the resident twice a week, during which dressings were made, and the reasons for the treatment adopted explained.

Touch Course.—Once a week throughout the year a "touch course" was conducted by Dr. RUSSELL. Here from three to six dispensary patients, whose condition without an anæsthetic was uncertain, were carefully examined under ether by two to four members of the gynaecologic section, who made their diagnosis under Dr. RUSSELL's direction. This course has for years proved of the greatest service to students.

Experience has shown that it was better for all concerned that the gynaecological dispensary be conducted by a limited number of experienced men; hence this department has not been opened to the under-graduates.

Pathology.—For four months during the year a course in gynaecological pathology was conducted by Dr. CULLEN.

After an introductory lecture at each exercise, sections were given out for microscopic study. Whenever possible, the history of the patient, the operative interference, and the subsequent treatment were reviewed, while the preparations were being examined and demonstrated under the microscope. The pathological laboratory was open throughout the year for any student who cared to carry out original investigations.

Examination.—At the close of the term a final examination, both practical and written, was held, covering the work of the year.

FOUR CASES OF DIABETES MELLITUS OF APPARENT BACTERIAL ORIGIN, AND THEIR SUCCESSFUL TREATMENT.

By J. P. SHERIDAN, M. D.

In the latter part of 1898, a writer in the *New York Medical Record* related his experience with bichloride of mercury in the treatment of diabetes mellitus, and advanced the novel theory of the bacterial origin of this affection.

At the time of publication of the article in question, I had some diabetics under treatment. As a moderately rigid anti-diabetic diet and the time-honored remedies did not check the glycosuria in my patients, I adopted the newly proffered theory, and eagerly prescribed the advocated chemical.

To-day, after a year's trial of germicidal remedies in diabetes, I have become a firm believer in the bacterial origin of diabetes. It is true the bichloride of mercury did not prove a success in my hands, but this only tends to demonstrate the existence of a peculiar diabetic toxine, which has to be combated by other means. This toxine, in my opinion, is particularly apt to attack the nervous matter, which in turn gives rise to the well-known disturbance of metabolism in diabetes—namely, preventing the deposition of glycogen in the liver and muscles, and causing its discharge by the kidneys in the form of grape sugar. The irritation of the vasomotor centres, to which may be attributed all the symptoms of diabetes, seems to be caused by this toxine. It is plainly the physician's duty to eliminate the toxic influences, for he thereby relieves the irritation of the nervous centres. However, he must be most careful in the selection of the proper remedy, and in the administration of its indicated dose. The failures in diabetic therapy have to be ascribed either to a wrong medicine, or its improper administration, or to both. The ideal anti-diabetic drug should not only exert distinct germicidal and antiseptic powers, but should be a powerful alterative. At the same time the system should not become weakened and emaciated by its prolonged administration. On the contrary, the ideal diabetic remedy should afford great tonic properties.

Bichloride of mercury and auri et sodii chloridum, which latter is so much lauded of late by a Chicago physician, possess some of these desiderata; but neither proved of any success in my hands in the treatment of diabetes mellitus. This non-success is due to three factors:—

A. The specific toxine of diabetes is affected only by a specific antiseptic.

B. Bichloride of mercury or auri et sodii chloridum, when pushed to their physiological tolerance, do not effect the decline of the glycosuria.

C. Bichloride of mercury as well as chloride of gold and sodium, when administered for any length of time and in larger doses, reduce the oxidising power of the red blood cells, thereby weakening the system and producing rapid emaciation.

The remedy answering all the demands for an ideal anti-diabetic I find in a combination of bromide of gold

with bromide of arsenic, called by its makers "arsenauro." This preparation undoubtedly exerts a specific influence upon the bacteria and the toxine of diabetes mellitus, which is elucidated by the following four cases:—

Case I.—Mr. C. L., aged fifty, American, clerk, consulted me on June 8th, 1898. Family history was negative. Patient complained of polyuria, the existence of which dated back about three months. The frequency in urination he thought to be due to a stricture, the possible result of a neglected gonorrhoea. Patient had a moderate appetite, felt quite thirsty at times, and had lost some weight. The urine (which was voided to the amount of about seven pints daily) on June 10th, 1898, showed a specific gravity of 1.038, and contained 7.1 per cent. of sugar, as ascertained by means of STERN'S urinoglucometer. A restricted diet and the administration of codeine caused only a moderate improvement of the symptoms. Bichloride of mercury, which was given for the last three weeks of December 1898, in the doses recommended, not only produced no beneficial influence whatsoever upon the diabetic condition, but actually aggravated the condition of the patient. Early in July 1898 my attention was drawn to the chloride of gold and sodium, which was handed to the patient in tablet form and administered first in doses of a fiftieth of a grain. The dose was gradually increased to a twentieth of a grain. After five weeks' trial of this drug it had to be abandoned, as the condition of the patient had become alarming in the meantime.

At about this period I ran across an article in the *New York Medical Journal* regarding the use of arsenauo in diabetes and determined to test this product, having previously used it with satisfactory results in malarial toxæmia.

On February 7th, 1899, eight drops of arsenauo were given in half a glass of water three times daily. The restricted diet was ordered to be continued. Patient reported to me in one week. The glycosuria and polyuria were greatly diminished. The feeling of thirst was not experienced any longer, and he expressed himself as feeling perfectly well. The dose of arsenauo was gradually increased until he reached his full limit of toleration, which supervened at fifty drops. The quantity was lessened to forty-five drops, and continued in this dose for sixteen weeks. After this period I examined the urine, which revealed a specific gravity of 1.020, and was absolutely free of sugar. Patient was discharged as cured, with the instruction to continue the arsenauo for at least six months.

Case II.—M. H., a woman, aged thirty-four, American, unmarried, came to consult me September 11th, 1898. July previous, during the hot spell, she perspired greatly and suffered from excessive thirst. Her weight, which normally was a hundred and sixty-five pounds, had diminished to a hundred and thirty-five pounds. Frequent micturition was distressing her greatly. Appetite was voracious for some time, and her strength gradually declined. When first seen by me, the daily quantity of her urine amounted to eight pints. Specific gravity 1.046; sugar 7.538 grains a day. She complained of incessant thirst, inordinate appetite, pain in back, and extreme feebleness.

She was put on a restricted diet on September 20th, but no medication given her. Patient improved somewhat, but not sufficiently. In December 1898, bichloride of mercury was given, and the same diet continued without effecting any noticeable change in the patient's condition. In February 1899 she was put on arsenauo, and the same diet still continued. The medicine was started in eight-drop doses three times daily, to be taken in a glassful of Vichy water. Ten days after great improvement had taken place. The urine became reduced to forty-nine ounces, specific gravity 1.028, and the sugar output to two hundred and ten grains in twenty-four hours. After this the dose of arsenauo was gradually increased until the patient reached her full physiological limit; this took place at forty-drop doses—that is, after the administration of two drachms a day. Patient was instructed to occasionally discontinue the administration of the remedy for twenty-four hours, and then to start again on thirty-five drops.

This latter dose was taken for some months, with the result of rendering the urine entirely free of sugar. She was advised to continue with the medicine for at least six months longer. I examined her urine of late, and found it absolutely normal and free of sugar.

Case III.—H. E. B., a man, aged thirty-seven, American, railroad conductor, consulted me in March 1899 on account of an irritable bladder. Patient was compelled to urinate quite frequently during the day as well as during the night. His other symptoms left no doubt as to his real affection—diabetes mellitus. The disease, so far as I could ascertain, dated back for about a year, and seemed to be devoid of further complications. The quantity of urine voided varied from twelve to fifteen pints a day, with an average specific gravity of 1.042. Sugar averaged four thousand grains for the twenty-four hours. The treatment consisted in restriction of diet and the administration of arsenauo, ten drops of which were ordered to be taken in half a goblet of water three times a day. This dose was gradually increased until patient took sixty drops three times daily. When this quantity, three drachms, was taken every day, the patient's lids began to puff and his bowels became loose and caused griping. The medicine was discontinued for twenty-four hours, but again ordered to be taken in fifty-five-drop doses. Patient had taken the fifty-five-drop doses for eight weeks, when I again examined his urine, which contained only a trace of sugar. One month later he was perfectly well, and all vesical irritation had disappeared—in fact, I pronounced him well. I advised patient to report to me from time to time, but to continue the arsenauo for at least six months.

Case IV.—B. R., aged forty-seven, a woman, unmarried, American, milliner, thin and emaciated, able to attend to her business, consulted me April 12th, 1899. Patient complained of great weakness, which had gradually increased for several months. She had excessive thirst and had voided a greatly increased quantity of urine, but her appetite was moderate. Her skin was dry and she complained of intense pains in the calves of her legs, especially in the morning. There was distressing pruritus vulvæ present. The specimen of urine sent to me for

examination presented a specific gravity of 1.045 and contained 8.1 per cent. of sugar. I restricted the patient's diet as to starches and sugar and placed her at once on ten-drop doses of arsenauo, to be taken in a half tumblerful of water three times daily. After one week the dose of arsenauo was increased three drops every day until she reached its toleration. Physiological saturation was obtained when forty-five drops were taken three times a day. The administration of the remedy was then stopped (as I am in the habit of doing) for twenty-four hours, after the lapse of which it was again ordered to be taken in forty-drop doses. This dose was kept up for six weeks. On July 3d she had gained seven pounds in weight; uranalysis demonstrated entire absence of sugar; the pruritus had entirely disappeared, and there were no evidences whatsoever of symptoms pertaining to diabetes mellitus. Patient was advised to continue the medication for at least another six months.

The four cases which so readily yielded to this anti-toxic treatment were apparently of bacterial origin. Arsenauo, by saturating the system, arrested bacterial activity, or killed the germs, or neutralized their toxins. However, only by saturation with the proper medicine—and, by the way, arsenauo is the only powerful alternative neutralizer which can be pushed to an almost incredible dose without doing bodily harm—can such results as are recorded in the foregoing be obtained.

SEXUAL IRRITABILITY IN THE MALE.

By A. SANDNER, M.D., M.R.C.S., ENG., L.R.C.P., LOND.,
Chicago, Ill., U. S. A.

No other morbid condition has proved so rich a harvest for the quack on the one hand, and so humiliating to the honest practitioner on the other, than the one with which, in my opinion, about twenty-five per cent. of young men in this country are at some time or another of their adolescent years affected—sexual irritability. I have treated, and am treating now, cases to which numbers of reputable members of the profession have repeatedly stated that there is nothing the matter with them, and have found them in a really pitiable condition. What is the reason for such action? I can only explain it by a mistaken modesty of the attending physician, for I cannot for a moment believe that ignorance of the necessary sequelæ is the real cause of the neglect. In a certain number of cases—those resulting from gonorrhœa—the tendency to use too many of the new remedies without paying proper attention to the dilution and application of them may account for some of the ill-results. Now, I am not for standstill, but I believe in giving preference to, and retaining, well-approved and efficacious remedies and methods; and while I do not believe in a physician adopting a routine treatment for a certain malady, I think it is well to have a well-tested outline of treatment at hand for ready reference. The application of experimental methods in private practice is detrimental to the reputation of the family physician.

When considering the prophylaxis and treatment of a disease, we must first have a definite idea as to its

etiology, for it is impossible to avoid and counteract unknown causes. The subjects of our discussion can readily be divided into three distinct etiological categories.

The first class of patients belong to the lithemic type. They are, as a rule, blondes, with blue eyes, flabby muscular tissue, and large stature, and look, according to the laity, the picture of health. But their assimilative power is so ill-balanced that the slightest indiscretion in regard to the consumption of nitrogenous food and malt liquors will cause an irritation of the urinary apparatus. It matters little whether we believe with GARROD that the nervous system is too weak to control the conversion of uric acid into the soluble sodium urate, or agree with LUFF that the kidneys neglect to perform this duty; the fact remains that large quantities of insoluble urates are eliminated whenever the slightest disturbance of the digestive function occurs. With those periodical eliminations an irritation of the urinary tract, and, during adolescent years, of the sexual apparatus, concurs, causing frequent and painful micturition and nocturnal emissions, with their sequelæ, which latter are not intended to be discussed in this paper.

The second class is the nervous type. They are rather thin, mentally active, are inclined to great variation of emotional excitement, and, as a rule, of dark complexion. Their nervous system has outgrown their physical constitution. Like every other impulse of their unstable nervous system, the sexual desire becomes an uncontrollable factor, and masturbation or excessive venery is resorted to.

The third class is the one whose sexual irritability can be traced to an antecedent attack of gonorrhœa.

It is only purposed to discuss the management of these cases up to when they have resulted in an inflammation of the prostate (veru montanum) and the seminal vesicles, but it is desirable to know the different course these three varieties run if left to themselves, or if improperly treated.

In the first class the sexual symptoms are obliterated after a while by the urinary troubles; the patient becomes a renal invalid. In the second the patient is considered "hysterical," and later "neurasthenic," with the adjective "sexual" if the true cause be recognised, and he has to bear all the miseries those constitutions entail. The subsequent history of the third class may include all possible sequelæ of gonorrhœa.

The greatest benefit to the first and second classes of these patients results from a knowledge of hygienic and dietetic means suitable to their respective conditions. The first requisite is a moderate and regulated amount of exercise. These patients should not be tired out, but they should enjoy at least two hours per day of exercise, preferably walking, in the open air. The lithemic patient can even perform more laborious tasks without any injurious consequences, but the nervous patient is better off if he takes everything, muscular as well as mental work, in a quiet and leisurely manner. I am thoroughly convinced that a good deal of nervous irritability is kept up with these patients by the excitement incidental to some games—football, for instance—whereas the lithemic, frequently melancholy inclined individual,

can hardly get exhilarated with any game; the reaction following muscular overstrain in the neurasthenic is sometimes just as depressing as a severe mental effort. It is by no means always an easy task to restore the patient's emotional equilibrium, but by proper moral support and auxiliary medicinal measures, a great deal of good can be accomplished.

The diet of the lithemic must consist of fruits and green vegetables, spinach being the best, mainly, and he should be very particular to avoid too much meat, coffee and alcohol. Such vague injunctions as "eat a light supper" should not form a part of the dietetic instruction to these patients, for the youthful possessor of a gouty constitution has inherited a desire for large meals, and has a far different idea of a light supper than the instructor. Fish and poultry should be substituted for meat, weak tea for coffee and buttermilk, or a little whisky in lemonade, if absolute abstinence cannot be practised for malt liquors and other alcoholic drinks. Eggs may be allowed in moderation. With the neurasthenic a nourishing and supporting diet is indicated. The heaviest meal should be the midday dinner, the supper consisting only of tea, bread and butter and fruit.

The medicinal treatment indicated in the first class resolves itself in the eliminative and supporting. As far as the former is concerned, I am strongly opposed to the customary Epsom salts and iron for pelvic congestion, for in my experience Epsom salts rather increases the supply of blood to the pelvic organs, and iron is generally not well borne by gouty subjects. I have had good results from—

R	Sodii et Pot. Tartar ...	... 2 ounces.
	Potass. Tartras. Acid ...	... 1 ounce.

M. Sig. One teaspoonful in a tumblerful of hot water every morning.

Plenty of fresh water is an excellent adjuvant. Another good remedy is LAMBERT'S Lithiated Hydrangea, one teaspoonful, freely diluted, twice daily. It combines a solvent effect upon the gouty deposits with a slightly laxative action. As a hematinic I use enemas of saline solution, one teaspoonful of salt to a pint of hot water, one-half to one pint every evening. Syrup calcii lactophosphate two drachms in one ounce of water, three times daily, is another suitable tonic.

In the neurasthenic it is of the utmost importance to allay the sexual passion. This may be accomplished by one-half to one drachm doses of fluid extract of *salix nigra* one-half hour before retiring. To build up the jaded nervous system I have obtained good results from arsenic in the following combination:

R	Sol. Fowler's ...	1 to 1½ drachms.
	Ext. Ergotæ ...	fl 3 drachms.
	Tr. Capsici ...	... 10 minims.
	Glycerini ...	... 1 ounce.
	Aque ...	q. s. ad 8 ounces.

M. Sig. One tablespoonful three times daily after meals.

Of nothing I am more certain than that a great deal of harm is done by the too frequent resort to local treatment. The passage of the sound I hold to be particularly injurious. The pathological condition is an inflammation of the prostate and seminal vesicles, and the only admissible local interference consists in the expression of the irritating secretion from these parts.

If I have spoken rather dogmatically about the classification of the etiological varieties, I wish it to be understood that I did so for the purpose of demonstration only, and that combinations exist which will only be brought to a successful issue by the proper discrimination of the attending physician. The prophylaxis of the third class of cases consists in the proper treatment of gonorrhœa, and I shall take leave to discuss this subject at some future occasion.

A MIRROR OF PRACTICE.

OVARIAN TUMOUR IN A GIRL THIRTEEN YEARS OLD: OPERATION: RECOVERY.

(REPORTED BY MISS K. BONNAR, L. M. S.),

Grigg Female Hospital, Barabanki.

KASALI, a Hindoo girl, aged 13 years, was admitted into the Grigg Female Hospital, Barabanki, on December 13th, 1900, with an abdominal tumour and symptoms of dyspepsia.

Personal History.—She is unmarried, and has never menstruated. There is no history of any serious previous illness.

Present Illness.—The patient states, and the statement is corroborated by the father, that four years ago she had an acute attack of colic, from which she recovered, but it was the beginning of a series of similar attacks, each one more severe than the last: abdominal massage generally relieved her. A week or two after the first seizure of pain she noticed a small tumour in the lower part of the abdomen, which gradually reached the size of a large marsh melon. The severity of the colic pains forced her to seek relief in hospital.

Present Condition.—The patient is fairly well developed and in fairly good condition: there is no marked emaciation, anæmia or any other indication of interference with nutrition. In the lower part of the abdomen below the umbilicus, and almost in middle line is a well-defined globular freely moveable tumour, the upper part of which is on a level with the umbilicus. It is dull on percussion, and has a distinct fluid thrill. It is not tender to the touch, its position is not influenced much by posture, and not at all by respiration. The only subjective symptoms complained of were pain and uneasiness in the epigastrium after food. The tongue was coated.

Diagnosis.—It was considered that the tumour was either an ovarian or one connected with the mesentery. It was decided that an operation was the only means of curing the girl of this tumour, and the consent of the patient and of the father having been obtained, preparations were made for the operation. On the day previous to the operation she had a soap and water bath and a change of clothes. The abdomen was washed with turpentine and covered with a pad of muslin soaked in perchloride lotion 1:2000. Castor-oil 3ii was given at night. On the morning of the operation, i.e. December 17th, a soap and water enema was given and then change of clothes. The instruments used were boiled and then put into carbolic lotion 1:20. A few minutes before the operation they were taken out and put in salt solution grs. 5 to 3i. Chinese twist was also boiled and put in carbolic lotion 1:20. Muslin pads 8" x 8", six folds each, were prepared for use as sponges, the muslin having previously been soaked in perchloride lotion 1:2000. The hands of the operator and assistants were first soaked in CONDY'S fluid and then in a solution of oxalic acid. Everything having been got ready, the patient was put on the table and the bladder relieved by means of a catheter. Chloroform having been administered, the abdo-

men was again washed with carbolic lotion 1:20. An incision was then made 2" long by Dr. M. N. OHDEDAR, and all bleeding points having been secured by SPENCER-WELLS' pressure forceps, the peritoneum was carefully opened, and two fingers introduced to explore the nature of the tumour. It was found that it was an ovarian tumour springing from the left side, and that the intestines were extensively adherent to it, especially towards the back. The incision was then enlarged upwards, and the anterior surface of the tumour made to present through the incision. An ordinary trocar cannula in the absence of SPENCER-WELLS' trocar were pushed in. On removing the trocar, about 25 ozs. of chocolate-coloured fluid came out. The tumour was then pulled out and several coils of small intestines which were adherent to it came out also. It was noticed that on account of these adhesions the complete removal of the tumour was impossible. The pedicle was then ligatured, and as much of the tumour as could safely be done was removed. About a fifth of the wall of the tumour was left adherent to the intestines as a permanent appendage. It was thoroughly scraped. The abdominal cavity was then flushed out with sterilised water. All fluid, especially from the DOUGLAS' pouch, was carefully removed by means of the muslin pads, one bleeding point was ligatured with catgut. The edges of the abdominal wound were then brought together carefully by means of deep silk-worm guts and superficial horse-hair sutures. The silk-worm sutures, which were six in number, were passed through the entire thickness of the abdominal wall, including the peritoneum. The wound was then dusted with iodoform, four folds of ALENSBROTH gauze and a pad of antiseptic cotton were laid on and secured by means of a broad bandage. That patient bore the operation well.

After-treatment.—For the first twenty-four hours after operation the patient was given nothing, though she complained of thirst. Urine was drawn off by a catheter every twelve hours. The evening temperature was 99.4°.

The next morning the temperature was normal, though the patient complained of some pain in the wound. Half a teaspoonful of milk and an equal quantity of soda-water were given every hour. Both in the morning and evening the temperature remained normal.

On the third day the quantity of soda-water and milk was increased, and from the fourth day BRAND's essence of chicken, a teaspoonful at a time, was given every hour, besides milk and soda in the morning and evening. On the fifth day she passed urine without the aid of a catheter.

On the sixth day, as the bowels had not acted, a plain hot water enema, 10 ozs., was given much against the patient's wishes. She fretted much and this caused a rise in temperature; in the evening the thermometer registering 99.8. The bowels were relieved, and from the next day she was allowed dal and rice cooked very soft, besides a tin of BRAND's essence of chicken per day. Beyond the rise in the temperature on the two occasions mentioned, she made an uninterrupted recovery, and

the sutures were removed on the tenth day. The wound healed by first intention. Fresh dressings were put on, and the patient being anxious to return home was allowed to leave the hospital on January 3rd, 1901—the eighteenth day after operation.

INTRAPERITONEAL RUPTURE OF THE BLADDER: OPERATION FOUR DAYS AFTER INJURY: RECOVERY.

BY W. PERCY BLUMER, F. R. C. S., EDIN.,

Surgeon to the Sunderland Infirmary.

J. P. B., labourer, single, aged 35, was admitted into the Sunderland Infirmary at 1.30 P. M. on August 2nd, 1900, complaining of pain in the abdomen and inability to pass urine.

History.—On the evening of July 29th, while walking along a street, he was seized with a feeling of giddiness and fell, striking his abdomen on the kerbstone. On recovery, he felt little the worse for his accident, and walked home. On reaching home he discovered that all attempts at micturition were fruitless; there was, however, a slight escape of what he took to be blood. On July 30th he stayed in bed and sent for a doctor, who prescribed a pill and saw him only once. He remained in bed till August 2nd, and feeling no better, walked to the infirmary, a distance of over two miles. He had been drinking heavily just before his accident, and said his bladder was full at the time.

Condition on Examination.—The abdomen was greatly distended all over, somewhat tender on palpation, and absolutely dull in both flanks and across the abdomen to little above the umbilicus. There was no extravasation into the perineum. Hiccough was constant and distressing; this had been the case for the three days prior to admission. He appeared very ill; the face was pale and drawn, with sunken eyes. No food had been taken, except milk and water, since the accident. Pulse 60 per minute, regular and fairly full. Temperature 96° F.

A soft rubber catheter passed easily, and immediately bloody urine flowed, 196 ounces in all being drawn out (quantity carefully measured). The abdomen thereafter resumed a more normal appearance. There was no doubt as to the nature of the injury.

Operation.—Laparotomy was performed at 4 P. M. with the assistance of Mr. T. F. HOGGOOD. The patient having been put under chloroform, an incision was made in the middle line just above the pubis, and the abdominal cavity entered in the usual way. A quantity of fluid similar in character to that previously drawn off flowed out. The bladder was lightly contracted, and showed a vertical tear on the posterior wall, which admitted two fingers easily, the peritoneum covering its wall being torn an inch lower down. There was no peritonitis.

The rent was closed with continuous sutures, the bladder tested, the abdominal cavity flushed out with hot boracic solution and the abdominal wound stitched up, a KEITH's drainage tube being inserted, and a soft catheter tied into the bladder.

After-history.—The tube was exhausted one hour afterwards (fluid $\frac{1}{2}$ ounce), then again in two hours (fluid 1 ounce). Thereafter exhaustion was made every four hours. The tube was withdrawn at the end of forty-eight hours, and the opening closed with a flying suture.

On the evening of August 5th the patient became very noisy and restless, attempting to get out of bed, pulling out the catheter and threatening the nurses; he suffered also from slight hallucinations. A hypodermic injection of morphine, $\frac{1}{4}$ grain, followed by $\frac{1}{4}$ grain one hour later, had the effect of quieting him, and that night he slept better. On August 6th he was quiet, and slept seven hours.

On August 7th, when dressing the wound, the lower stitches appeared very tense, and on cutting two drachms or so of pus, and what was evidently urine, escaped. The opening was syringed with 1 in 5000 corrosive solution and drained with iodoform gauze. That evening a consultation was held as to the advisability of opening up the abdominal wound; it was, however, deemed inexpedient on account of the sloughing state of the tissues and the almost entire absence of symptoms of peritonitis. A fine rubber drainage tube was inserted instead of the iodoform gauze, and hot boracic fomentations applied every two hours. A seidlitz powder was administered.

There was evidently a little leakage from the bladder, and small quantities of urine continued to flow through the tube in the abdominal wall, the channel being cut off from the general peritoneal cavity.

The remaining stitches were taken out on the tenth day, when the whole length of the wound burst open, and a large slough was taken out. The urine was now very alkaline. On August 9th, 99 ounces of urine were secreted in the twenty-four hours. The bladder was syringed out with boracic lotion, and boracic acid, 10 grains, was given thrice daily. This treatment was continued for ten days, after which salol was administered in 5-grain doses every two hours, in place of boracic acid, up to 60 grains in the day. Under this treatment the cystitis rapidly yielded.

The temperature was generally subnormal for the first ten days, but on the third and tenth days it reached 99° F. On the sixteenth and twenty-first days it reached 101° F. It then fell to normal, and remained so until the end.

The fistula was rather slow in healing, but the patient was discharged quite well on October 29th. During the last week of his convalescence he had three epileptic fits of a transitory nature.

Remarks.—I have not been able to find on record such a case. The points calling for special mention are—

1. The length of time between the injury and operation.
2. The large amount of fluid in the abdomen causing comparatively little trouble.
3. That four days after the injury the patient walked over two miles.
4. The absence of symptoms of peritonitis.

I am indebted to Dr. C. G. WERRINGSPOON, house surgeon, for the notes of this case. His care and attention materially contributed to the patient's recovery.

NOTES ON A CASE OF PROFUSE HYDROPERITONEUM * TONEUM COMPLICATING UTERINE FIBROIDS.

BY A. C. BUTLER-SMYTHE, F.R.C.S., EDIN.,

Surgeon to the Samaritan Free Hospital for Women and Children, and to the Grosvenor Hospital for Women and Children, Westminster.

In abdominal surgery one frequently meets with cases in which uterine fibroids are accompanied by varying quantities of hydroperitoneum, the amount seeming to depend more on the mobility of the growth than on its size. Instances of profuse hydroperitoneum occurring in patients free from thoracic or other abdominal disease are, however, uncommon, and therefore I have ventured to publish this case.

Mrs. T., aged 40, consulted me in December 1895 on account of an abdominal swelling.

History.—She had been married seventeen years and had had three children, the youngest being then 14 years of age. Menstruation began at 15, and her periods had always been regular and painless, the loes being free and the flow lasting usually seven days. Her last period had occurred in November 1895. In her early life she had had the usual minor ailments, and after marriage pneumonia. She had also two attacks of influenza. Six months previous to her visit to me she experienced some abdominal pain, and later on a swelling was noticed in her right side. This swelling seemed to become bigger before each period, and in the intervals it decreased in size. Of late she suffered from constipation, and there were symptoms of bladder pressure. There had been no loss of flesh within the last six months, her weight being now 8 st. 11 lb. Up to December she had enjoyed good health, and was well able to attend to her business and household duties.

Condition when first seen.—Medium height, pallid features, skin moist, tongue clean, pulse regular and of fair volume, temperature normal, respirations natural, slight hæmic murmur at base, but otherwise the heart seems healthy, bowels constipated, urine free from albumen and sugar, liver normal. Bimanual examination revealed two moveable tumours in the abdomen—one situated in the right iliac and lumbar regions, the other occupying the hypogastric and left iliac regions. Pressure on one or both of the tumours was communicated to the uterus, showing them to be closely connected with that organ. The cervix uteri was hard and granular, the os patulous, and the uterine cavity measured 3½ inches. The diagnosis arrived at was "subperitoneal uterine fibroids," and it was agreed that operative interference was uncalled for in the absence of severe symptoms. The patient was therefore put upon ergot and iron, and advised to live frugally, avoiding wines, and stimulating diet.

Progress.—The patient remained in fair health until August 1896, when she had an attack of peritonitis, and in my absence from town consulted Sir SPENCER WELLS, and later on Mr. ALBAN DORAN, both of whom advised against operative measures. During the following ten months she had little to complain of, and continued at

her business, being able to take long walks and look after her house. On June 28th, however, she met with an accident, being knocked down by a cart when crossing the road. She was much bruised on the abdomen, thighs, legs, and arms, and narrowly escaped being killed. The accident was followed by abdominal pain, and from that date she rapidly lost ground.

Repeated Aspirations.—The tumours became tender, emaciation was marked, and on August 24th free fluid was detected in the abdomen. By September 13th she was much distended, and 18 pints of clear amber-coloured fluid were removed by aspiration. On September 24th she was again relieved, 20 pints being withdrawn. At the end of two weeks, on October 6th, the aspirator was again necessary, and about 20 pints were evacuated. On October 25th the patient was admitted into the Grosvenor Hospital for Women, Westminster, and two days later she was for the fourth time aspirated, 21 pints being removed. The re-accumulation of fluid, however, was so rapid that on November 2nd about 14 pints were taken away.

Operation.—The patient now decided to have the tumours removed. Accordingly, on November 6th, I operated. On opening the abdomen about a gallon and a half of fluid escaped. The parietal peritoneum was unusually thick and injected. The omentum was adherent to the parietes and also to the anterior surfaces of both tumours. There was much intestinal adhesion, the cæcum and appendix cæci having to be dissected off the lower part of the right tumour before it could be brought outside the abdomen. The *serre-naud* was then placed in position, and the operation completed. Chiefly owing to the extent of intestinal adhesions the operation occupied two hours, and the patient when put to bed was in a very collapsed condition.

Recovery.—She rallied steadily and made a good recovery. There has been no return of the hydroperitoneum, and at the present time the patient enjoys the best of health.

To my mind it is clear that the hydroperitoneum was directly caused by the injury to the peritoneum covering the fibroids, inasmuch as up to the date of the accident the patient was in very fair health, whereas all the bad symptoms rapidly developed after the injury, and were at once relieved, and the patient cured by the removal of the uterus and tumours. The following points seem to me to be worthy of consideration, and may be of interest to my hearers:—

1. The ovaries and tubes were healthy.
2. The tumours removed were simple fibromyomata, and showed no signs of malignant or other degeneration, but the peritoneum covering them was thick and injected. The tumours were not oedematous.
3. Up to the date of the accident no free fluid had been detected, and there was no loss of weight.
4. Emaciation was first noticed, and free fluid in the abdomen first detected about six weeks after the accident.
5. So far as could be ascertained, the patient was free from thoracic or abdominal disease.
6. Though aspiration had to be performed five times in six weeks, and about 20 pints of fluid were evacuated each time, yet there was no re-accumulation of fluid after the supra-vaginal hysterectomy, and the patient remains in perfect health.

Indian Medical Record.

30th January 1901.

THE DEATH OF OUR BELOVED QUEEN.

"HER MOST GRACIOUS MAJESTY THE QUEEN IS DEAD"—Such was the sad message flashed from London to all the ends of the earth, when at Osborne, at 6-30 P. M. on Tuesday, the 22nd January, the Queen-Empress breathed her last and fell asleep in death. That fervent, soul-stirring prayer of a nation and an Empire—

"God save our Gracious Queen,
"Long live our Noble Queen,
"God save our Queen.
"Send Her victorious,
"Happy and glorious,
"Long to reign over us,
"God save our Queen."

will no more be sung. But how thankfully and reverently should every British heart acknowledge that never was prayer more fully answered. Long life and reign, "victorious, happy and glorious," beyond comparison in history, has been, and is, the record of an unblemished, ideal, queenly life. It were vain to dwell at length on such a record in a medical journal. Authors, poets, orators, journalists of the highest order in every realm and in every clime, will recite and indite the story of the life of Victoria, the Great, the Good. We only venture to express the deep sorrow of every heart in this Empire, the genuine and poignant grief of every member of our profession, for the great and inestimable loss which every subject of the world-wide British Empire now suffers by this dread calamity. The Victorian era has been one of "victorious and glorious" triumph for the peaceful and gigantic strides of medical science, not more in any country than in Britain and in India. Side by side with the march of Science in the Indian Empire, there has advanced an ever-enlarging, ever-expanding stream of civilization, carrying with it light and education, peace and progress and contentment. Such has been England's mission in India, and for the completed record of its work during the reign of Victoria, the millions of India have loved and venerated their Queen-Empress with a devotion that is akin to holy, almost deified reverence. May nothing ever occur to mar their respect and love for England's monarchy, for in these two factors is bound up the peace and contentment of this Indian Empire. "Righteousness exalteth a nation." Even so the righteous life of our beloved Queen has been the ideal for India's faith in our Government. This ideal must find a living reflection in our rulers, the representatives of England's Government. There must be justice, there must be honest dealing, there must be no duplicity. May the same God who has wisely and mercifully and lavishly dispensed His bountiful blessings on the dominions and peoples of our beloved Queen-Empress, continue to bless in like manner the great and glorious Empire of England; and may the prayerful song of the Empire's millions ascend for him of whom "the Governor-General in Council announces that His Most Gracious MAJESTY KING EDWARD THE SEVENTH has been proclaimed KING OF GREAT BRITAIN and IRELAND, and EMPEROR OF INDIA."

ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR THE YEAR 1899.

I.

We are glad to note that the Annual Report of the Sanitary Commissioner with the Government of India appears much earlier in the year than usual. It is indeed no small monument to the energy of those responsible for its production that this mass of vital statistics, embracing the whole of the Indian Empire, should be ready for publication within a year of the time to which it refers.

It is, as we have remarked before, a formidable-looking volume, and no doubt the portentous array of figures which go to make up the second half of it will not readily appeal to the general reader. We are certain, however, that not one of the fifty-three tables of vital statistics could be spared; they have been evolved from years of well-directed labour; they are wonderful compilations and cannot be surpassed for comprehensiveness or lucidity.

There is hardly a fact regarding the health of any corps or station, or the prevalence of any particular disease, that cannot be found in a minute by an intelligent use of these tables. As to the value of this report, there can be no two opinions, and it is safe to say that no medical officer can do his duty to the State, or justice to himself, who does not study and constantly refer to its pages. To such it is full of interest and information, and we would not wish to see it curtailed in any way.

The comments and criticisms of the Sanitary Commissioner are valuable, and often in sympathy with the difficulties encountered by medical officers bound down by many restrictions and an unsatisfactory nomenclature. The references to current European literature are well chosen and are no doubt useful to many who would not otherwise have the opportunity of keeping up with the latest developments in special subjects.

The volume may be considered in four parts, dealing respectively with the health statistics of European troops, native troops, the jail population of India, and the general population. Although the last cannot compare with the others in accuracy, still much is to be gathered from it, and it is no doubt convenient to have all the vital and health statistics brought together within the compass of a single volume.

It has long been the custom to seek

METEOROLOGICAL CONDITIONS.

There are many at the present day who deny the climatic origin of diseases, and seek to explain every pathological condition on the supposition of some specific micro-organism. Whether this is carrying the bacteriological craze too far is still open to question; but there can be no doubt that the experience of years has shown that the health of the year and the prevalence of many diseases is profoundly affected by the prevailing meteorological conditions. Whether this effect of the atmospheric phenomena is direct or indirect, whether it acts directly upon the human organism or indirectly through the medium of minute forms of life by favouring or retarding

their development, it is as yet impossible to say. All that can be said with certainty is that certain diseases are profoundly affected by meteorological or climatic conditions.

The year 1899 is no exception to this rule. The most marked meteorological feature of the year was a deficient rainfall, for "the rainfall of the whole of India for the whole year was in defect by 11.14 inches."

This deficiency was, however, not universal, for in parts of the Empire the total rainfall was in excess, as in Lower Bengal, Upper Burma and the greater part of the North-West Provinces. Speaking generally, the monsoon rainfall was abundant in the east, while in the west and south it was deficient.

METEOROLOGICAL EFFECTS.

Ague, no doubt, is the disease that is most sensitive to climatic vicissitudes, and the result of a dry hot year is very marked in the statistics of European and native troops. In the former, the admission-rate fell from 394 in 1898 to 235 in 1899: in the latter, the fall was from 335 to 260.

Again, amongst European troops we have an increase of ague with an abundant monsoon, and *vice versa*. In Bengal and Orissa the admission-rate increased from 603.5 to 658.1, and in Burma Coast and Bay Islands from 56.3 to 187.4, while there was a reduction from 766.3 to 276.9 in the N.-W. Frontier, Indus Valley and North-Western Rajputana.

Amongst native troops the regiment that suffered most was the 12th Bengal Infantry, which was quartered in Calcutta. "It is stated," the Sanitary Commissioner informs us, "that some of the villages in *that part of the country* (*sic!*) were being deserted on account of malaria."

"*That part of the country*" is certainly a curiously vague way of alluding to the neighbourhood of Alipore, a suburb of Calcutta, where this regiment was stationed.

In all four divisions of the Sanitary Commissioner's Report we have the fact emphasised that the year 1899 was an unusually healthy one, and it is interesting to note that the dreaded scourge of cholera was much less prevalent than usual.

CHOLERA.

Amongst the whole of the European troops in India there was only one case which proved fatal. Commenting upon this, the Sanitary Commissioner says: "This phenomenal freedom from the disease has no parallel in the medical annals of the army in India."

Amongst native troops, on the other hand, there were 124 admissions with 68 deaths, against 44 admissions with 42 deaths in 1898. The figures for prisoners were 101 admissions with 62 deaths, against 23 admissions with 14 deaths in 1898. These figures are taken from the statistical tables at the end of the report. Curiously enough, they do not agree with those given by the Sanitary Commissioner in his remarks in the first-half of the volume.

Amongst the general population, cholera was much less prevalent than usual, though, as in the case of native troops and prisoners, it was more prevalent than in 1898.

In 1898 the number of deaths in the whole of India was 152,703, and in 1899 it was 171,410; the latter figure is said to be "considerably less than that recorded in an average year in Bengal alone.

No explanation is given to account for the great falling off in cholera in 1898 and 1899.

INFLUENZA.

A disease which appears to have taken a considerable hold in the country is influenza. In 1894 the Sanitary Commissioner was sanguine enough to express the opinion that there is "some ground for hope that the disease is gradually wearing itself out." This hope has, however, not been realised; and the year 1899 is marked by an increase both in European and native troops, while there is a falling-off amongst prisoners.

The year 1890 was the first year that influenza became epidemic. In that year there were 2,263 admissions amongst European troops, 8,217 amongst native troops, and 7,643 amongst prisoners.

Nothing like this has occurred since, but during the last three years the figures have steadily increased: in 1897 they were 272, 695 and 987 for European troops, native troops, and prisoners respectively; in 1899 the figures are 674, 1,586 and 1,622.

The disease has also spread further and apparently taken a more extensive hold upon the country. A weak point in the report is that no mention is made as to the prevalence of the disease amongst the general population. That they are not exempt from it we may assume from the fact that native troops and prisoners suffer; but we are in complete darkness as to the extent of its ravages.

There can be no doubt that the accurate diagnosis of influenza is a matter of much difficulty, and we should very much like to have some information as to the symptoms that are most reliable in this respect. We gather from the report that the difficulty has been freely admitted by several medical officers, but we look in vain for any assistance, with the exception of a remark about bacteriological methods, which unfortunately are out of the reach of most military hospitals. At Barrackpore the likeness of some of the cases to dengue was noted; we should like to have some information as to the differential diagnosis. Again, in 1899, the Jhansi report states that the diagnosis between influenza and simple continued fever is variable; and the Medical Officer at Rangoon states that some of the cases returned as ague were probably influenza.

The death-rate amongst troops is, as might be expected, very low; for influenza is not a fatal disease amongst people in the prime of life, unless neglected. It is more to the point to notice that it is nearly twice as high amongst prisoners as amongst native troops, and again it might be expected to be very much higher amongst the aged and broken-down in the general population.

PLAGUE.

Amongst European troops there were seven cases of plague with two deaths, against nine cases with two deaths the previous year. The stations which returned cases were Poona, Kirkee, Ahmednagar and Deolali.

In the native army there were 76 cases with 45 deaths, against 94 cases with 58 deaths in 1898. The regiment that suffered most was the 21st Madras Infantry at Belgaum.

We are at a loss to understand why these cases are not shown in Tables IV and XXIX with all other diseases.

In the jails of India, only five cases occurred with two deaths.

Amongst the general population, as far as the returns sent in go, there were 139,009 deaths in 1899, against 116,285 in 1898.

There was a very large increase of plague in Bengal, from 219 to 3,264; in Madras Presidency, from 557 to 1,568; in Bombay, from 86,191 to 96,596; in Mysore, from 5,335 to 10,810; and in Hyderabad, from 3,868 to 6,378. Of the 3,264 deaths recorded in Bengal, Calcutta was responsible for 2,681.

PERSONAL EXPERIENCES IN APPENDICITIS.

MR. HERBERT W. ALLINGHAM, F.R.C.S., Surgeon to the Household of H. R. H. The Prince of Wales, Surgeon to the great Northern Hospital, and Assistant Surgeon and Lecturer on Operative Surgery to St. George's Hospital, contributes a valuable and interesting paper to an English contemporary, detailing his personal experience on the much-discussed subject of appendicitis. We give the essentials. In such cases, it is pointed out, statistics are of little or no value, because many cases appeared well for the time and were lost sight of: cases of third or fourth attack would be reported in their second or third attacks as cured without operation. In the writer's opinion the great majority, if not the whole, of such cases should be looked upon from a surgical point of view. The seriousness to life of the affection was due to the position of the appendix in the abdominal cavity, where, if an abscess burst, the pus must either make its way into some neighbouring hollow viscus, or infect the general peritoneum, and so give rise to one of the worst forms of sepsis. For practical purposes, there were three sets of causes: (1) Foreign bodies, such as seeds of fruits, hardened faecal matters, and pins or beads, etc. (2) Different forms of ulceration—catarrhal, tubercular, syphilitic, dysenteric, or even typhoid. (3) Malposition of the appendix, causing it to become strangulated on itself, or to favour retention of foreign bodies. The pathology was the pathology of inflammation from any of these three causes. If the inflammation was moderate, the attack was only catarrhal: if severe the condition might proceed to ulceration: if grave, gangrene might supervene. In women, doubt in diagnosis often arose on account of disease of the right ovary, extrauterine gestation, or, in both sexes, some irritation in the course of the ureter. At times it was impossible

to be absolutely certain that the appendix was at fault. In these cases the speaker's plan was, on the appendix being found normal, to systematically examine the ovary and tube on the right side by enlarging the ordinary incision downwards. If in doubt, it was far safer to operate, because operation, if too early, did no harm, and if too late, was generally hopeless. Mr. ALLINGHAM's experience enabled him to make three main divisions of appendicitis:—

I. *Extremely acute appendicitis*.—No history of previous attack: condition—abdomen rigid and tender, greatest tenderness over right iliac fossa: legs drawn up: abdominal aspect: temperature above normal, not necessarily high: pulse out of proportion to temperature: *rapidity of pulse was of the greatest importance*, and was the most reliable symptom: vomiting might be present, but constipation or diarrhoea was of no moment as a symptom. The history was always a sudden seizure. In these cases pus was in all probability free in the abdominal cavity.

Treatment.—Immediate operation before the pus could infect the general peritoneum so as to render the patient septic. Every case operated on by the writer, in which general septic infection had thoroughly got hold of the patient, had died; whereas in those cases in which operation had been immediate, or within a few hours after perforation, recovery had followed without exception.

II. *Recurrent chronic appendicitis*.—History of one or two previous slight attacks: general condition revealed practically no indication of mischief: fever slight, and pulse not out of proportion to the temperature, abdomen soft, with often some tenderness over right iliac fossa and slight rigidity of abdominal muscles there.

Treatment.—If temperature and pulse taken every four hours show after 24 hours that there is a tendency towards falling, leave patient surgically alone, and wait a week or a fortnight and then remove appendix.

III. *Acute attack supervening upon a chronic appendicitis*.—History of two or three previous attacks: present attack much severer, with symptoms resembling those of the first class.

Treatment.—Immediate operation. There was everything to gain in operating early, the adhesions being recent and easily separated: after each attack more adhesions formed, and the old ones became firmer, rendering the operation more difficult and dangerous.

The appendix might be found in different positions in the abdomen: (a) Free and quite moveable in the abdominal cavity—the commonest. (b) Resting in one of the pouches round and about the cæcum, and liable thus to escape notice. (c) In recurrent appendicitis, hidden or incorporated in and with adhesions between the cæcum and the abdominal wall, and thus very easily overlooked. One important feature alluded to by the writer is that the presence of a mass in the right iliac fossa is not necessary as a proof of appendicitis. The most serious and dangerous cases were those in which no mass whatever was felt.

Operation.—The best incision was the usual oblique one, made on a level with the anterior superior spine of the ilium, and about one and a half to two inches to the inner side of it: skin divided: abdominal muscles separated with the fingers, thus interfering as little as possible with them, and rendering subsequent hernia less liable: abdomen opened: appendix sought for and freed from connections by the fingers, for it could thus be best appreciated what parts were giving way, and there was less likelihood of tearing the gut or neighbouring parts. The best treatment of the appendix was to make a sleeve of peritoneum as advocated by BARKER, to ligature the appendix near its base, to touch the end of the stump with some pure carbolic acid, and then to bring the sleeve of peritoneum over and tie a ligature round the end of the sleeve. If a friable appendix be torn away from the cæcum, invert the stump into the cæcum, and put in a couple of stitches, sewing the peritoneal surfaces over: if not possible, pack abscess cavity with iodoform gauze: fistula in such cases was unavoidable: a spontaneous closure in the course of time could, however, be anticipated. If the appendix were curled up underneath the cæcum, free the adhesions binding the cæcum to the iliac fossa, so that the cæcum could be turned over into the abdominal cavity. If a large abscess had formed, blocked off from the general peritoneal cavity by adhesions, the treatment was that of any other abscess. If the appendix was easily seen and not very adherent, it might be removed then and there: if, however, there was the slightest difficulty in finding it attended with any risk of opening up the general peritoneal cavity, it was far better to leave the diseased appendix alone. In acute cases, where the appendix had burst and pus was free in the general peritoneal cavity, the best procedure was to sponge away the pus and then fill the abdomen up with sterilized water. The water diluted the poison if there were any left, became absorbed and improved the general condition of the patient. The surgical treatment could only be carried out satisfactorily by the common sense of the surgeon: fixed rules were impossible in the greatly varying conditions to which the appendix was liable in disease and in health. The *after-treatment* consisted in treating symptoms. If the patient be thirsty, give him drink: if restless or in pain, small doses of morphia ($\frac{1}{4}$ gr.) repeated if necessary: if distension occurred, means should be taken to overcome it, the use of the rectal tube for two hours at a time every six hours being the most useful, or a turpentine enema repeatedly given: should these fail, and vomiting be not present, castor-oil, followed by repeated doses of sulphate of soda or magnesia, was beneficial, and, with vomiting, repeated small doses of calomel (3 grs.) placed upon the tongue. Lastly, Mr. ALLINGHAM advocated allowing the patient to lie in bed in any position. There was a rule that a patient, after an abdominal section, should be kept on the back: the writer had often found this detrimental, creating much discomfort attended with sleepless nights; whereas liberty to the patient to sleep in any position often ensured a perfectly good night. In those cases where untoward after-effects were happily absent, the wisest course was to avoid any active treatment.

COMMENTS AND NEWS.

REMARKS ON PROPER AND IMPROPER BURIAL, WITH SPECIAL REFERENCE TO CREMATION.

In a communication to the *British Medical Journal*, Sir FRANCIS SEYMOUR HADEN, F.R.C.S., England, the well-known advocate for "earth" burial, summarises his views expressed in numerous controversies during over 20 years with eminent supporters of cremation as the method of disposal of the dead. We extract the essentials. The case for earth burial might be shortly put thus: (1) The natural destination of all organised bodies that have lived on the earth, and that die on the earth's surface, is the earth. (2) The evils supposed to be inseparable from the principle of interment are independent of that principle and of our own creation. (3) The source of these evils is to be found, not in the burial of the dead, but in the unreasoning sentiment which prompts us to keep them unburied as long as possible, and then to bury them in such a way that the earth (or rather the air) can have no access to them. (4) The principle of burial supposes the resolution of the body by the agency of the earth to which we commit it, and that the earth is competent to effect that resolution and to effect it innocuously. (5) To seek to prevent the beneficent agency of the earth by enclosing the dead in imperishable coffins, brick graves and vaults is in the highest degree irrational, since it engages us in a vain resistance to an inevitable dispensation, and has led us to accumulate in our midst a vast store of human remains in every stage and condition of decay. (6) Unwarned and undeterred by this magnitude of evils, we were still extending and perpetuating them. (7) Were the dead only properly buried, not one of those evils would have any existence, not a single dead body would remain to encumber the soil, and a quantity of land of incalculable value, now hopelessly alienated, would be liberated for purposes of hygiene or of utility. (8) The remedy for such evils was, therefore, not in cremation, or in any of the alternatives that have been proposed for burial, but in a sensible recognition of, and a timely submission to, a well-defined law of nature, and since some of these alternatives were dangerous in legislative action to enforce the provisions of that law. (9) The claim that earth had upon its dead, no less than that which the dead had upon the earth, was in short, a proposition too obvious to merit discussion. To understand it, we need only consider the properties with which the soil at our feet and everywhere had been endowed: that it was the most potent disinfectant known, and the readiest of application, and that by a combination of forces inherent in it, which might well appear contradictory but for the wonderful purposes they are destined to effect, it is resolute and reformatory as well: that that which under the influence of the air was putrefaction, in the earth is resolution: that which was offensive becomes inoffensive: that which was mere decay a process of revivification. To question the competency of the earth thus endowed, to effect the resolution and conversion of its dead, or to fail to perceive and profit by that competency, would pass comprehension if habit had not taught us to shut our eyes to it, and if the advocates of cremation had not stepped in to tell us that we might improve on it. The conclusions arrived at by the writer at the end of the prolonged discussion were: (1) That the Cremation Society had created a very general impression that there was only one kind of burial and only one remedy for it—cremation—a statement which was quite misleading. (2) That this belief had been greatly asserted by the systematic suppression on the part of an influential portion of the

press of all effectual answers to the cremationists' statements, and that in this way the country had become flooded with these unopposed fallacious statements. (3) That the Government was equally to blame for allowing the abuses referred to to go on, and was therefore, to that extent, responsible for the cremationist agitation. (4) That burial, as at present carried out in coffins which prevented the resolution of the body, was equally a reproach to the intelligence of the country, and to the Government which permitted and prescribed such a practice. (5) That to make the practice of burial perfectly harmless, and to do away with all excuse for cremation, nothing more was necessary than to take the whole management out of the hands of the undertaker and speculator, and to make it a matter of State or Municipal regulation. (6) That while the earth, properly used, was capable of disposing of any number of dead bodies insensibly and with advantage, both to its own substance and to the air above it, the practice of cremation, on a scale large enough to have even the slightest influence on burial, either as a rite or a custom, supposed the necessity not of one, but of many furnaces, the use of which in or near towns no municipal authority would for a moment permit, and which, even in the open country, would cause such a consumption and carbonisation of pure air as to render (changes of wind considered) a large area in the neighbourhood uninhabitable. (7) That the cremationist statement that burial, however conducted, was "a propagator of infection and a cause of increase in the zymotic death-rate," was not only untrue, but abundantly disproved by expert evidence from all parts of the country. (8) That there was no definite statistical evidence to show (a) that the general death-rate, or (b) the zymotic death-rate, or (c) the death-rate of any group of diseases, or (d) the death-rate from any single disease, zymotic or otherwise, had ever been affected by burial, even under the present objectionable conditions. (9) That statements of the number of exhumations practised, and of murders discovered by them, is incorrect. (10) That the statement in *modern cremation* which allowed the reader to infer that, "though exceedingly rare in this country," it could not be altogether denied that premature burial was possible, while "with cremation no such catastrophe could ever occur," was fairly disposed of by the negative reply to Mr. HADEN's questions on the subject of trance by such eminent men as GEORGE BURROWS, M.D., President of the Royal College of Physicians, WILLIAM FERGUSSON, WILLIAM GULF, M.D., WILLIAM JUNNER, JAMES PAGET, and THOMAS WATSON, M.D.

MODERN ANATOMY.

In a paper read before the Philadelphia County Medical Society, Dr. EDMUND HOLMES animadverted against the present system of tuition in anatomy at medical schools. We extract the important observations from a report in the *Journal of the American Medical Association*. There were three fallacies in the present method of teaching: (1) A large public clinic for so-called practical clinical instruction. (2) A main reliance upon didactic methods in all branches. (3) An old style dissection room. It was pointed out that the time for the didactic lecture was passed, owing to the greater equality in intelligence between the teacher and the taught. Although anatomy was the basis of the whole medical fabric, it was also the most difficult, and received the least practical attention. The modern dissecting room should be clean, accessible, under strict supervision, open during certain hours only for earnest individual work: the daily task outlined upon the blackboard presupposing two hours' study at home the evening before in preparation for the following day's dissection, not with a single man, but

with a large corps of competent assistants, all in attendance throughout the assigned hours of dissection, material in abundance, the bodies well preserved and thoroughly cleaned. The student must know something of anatomy before he commences to dissect, and the dissection of the whole body during each of the first and second years, and a re-dissection for applied anatomy during the third year, should be the minimum of requirement. Modern anatomic education required the highest intellectual training as a preliminary in which histology, embryology and comparative anatomy form part. With the modern methods of precision in diagnosis and practice, the knowledge of the facts of anatomy was never so important, yet in medical schools human anatomy was often pushed aside by the less important glogies and isms. The teaching of a medical school should be mainly upon human anatomy, and should be mostly upon cadavers, with didactic lectures only as an adjunct, the stock drilling and teaching being by younger men, who should have decent remuneration, while the professor, freed from the exhaustion of elementary work, should have time to devote himself to original research and to the instruction in the higher elements of his art. The scope of this branch had enlarged so tremendously that the tendency was to lead its teachers not, as formerly, into practice or surgery, but into the fields of scientific research. The medical profession was lamentably weak in this subject—far weaker than they would dare to confess to the general public, or perhaps even to each other—and this not because they had forgotten, but because they never knew it: they were never properly taught it: they were never given sufficient facilities for study or review, were never sufficiently impressed with its importance, and because they were taught by hearing, and not by touch, by faith, and not by sight. The instruction should be practical, and communicated not only through the ear, but also by the eye and by the hand. It should not be forgotten that the majority of students must necessarily be practitioners, not scientists, and in schools, therefore, devoted to the evolution of the everyday physician, the facts taught should be broad, major, practical, rather than minute, scientific or theoretic.

FREQUENCY OF CRIMINAL ABORTION AMONG THE MARRIED.

THE *New York Medical Journal* discusses in a leader the disquieting frequency of criminal abortion, especially as occurring among respectable married women, who were often in other respects of high moral character, great natural refinement and culture. We give the essentials. The existence of this practice was apparent from the large and lucrative trade in abortifacients. The primary error lay in a misconception of the term "love." Two views were admitted: (1) That love with the vast majority was a means of purely sensual gratification, which was legitimised by "marriage." (2) That the performance of the sexual act was mainly and primarily for the procreation of the race. Any fraud concealing the fact of a known incapacity for motherhood—as after oöphorectomy—was of course a just and reasonable ground for the annulment of the marriage bond; but this view alone reduced the glorified companionship of matrimony to the principles of a stud farm. Neither of the above views was consistent with the true ideal of love. The true idea of love was an earnest yearning for the most complete and intimate union, harmony of vibration and mutual absorption attainable between two beings, each of whom is both the lover and the beloved. As between man and his religion the mode of union would be purely spiritual: in a solely material existence it would be purely

sensual: in man it partook of both in direct proportion to the balance between the physical and spiritual natures of the individual. Were women as (physically) passionate as men? The reply was "yes" and "no." The normal woman was ready to yield herself wholly to the man she loved intuitively, realising the inner significance of the act. But when she came to recognize the sensual character of man's interest in it, even when he is genuinely attached to her, that which should be the cup of sweetness often become bitter as wormwood. The act of sexual union, undertaken solely for the production of a physical sensation, was as impure and lustful, whether legal or not, as an act of communion would be unholy in the Christian if done solely from a desire to appease hunger with the material bread, or to gratify the palate with the sensuous flavour of the wine, no matter though the act were done with all due observance of the rites and ceremonies prescribed by the religious body to which the individual happened to belong. Such an exultation of emotional desire in the sexual act was often wanting, and the after-effect was undoubtedly a blunting of the moral sensibilities as regards the eventualities of such congress, and the transmission of an excessive sensuality to the progeny. From the social side the difficulties placed in the way of young people mating, in whom the real higher emotion existed, led not infrequently to "illicit" intercourse and an illicit union (which was by no means necessarily lustful in itself, though it probably arose from lust rather than love in the large majority of cases), and possibly an unexpected and unwelcome pregnancy entailing social outlawry unless obviated. The result was abortion, regarded by the distracted sufferers as the lesser of two evils. When the congress was the result of lust, even in the married, pregnancy was invariably unwelcome. A more thorough understanding and appreciative practice of actual purity, which was a matter of motive, not of act, among the married, together with the proper and progressive enlightenment of children on the subject, would change the entire public estimate of marriage, and by removing social and other impediments to the lawful expression of the imperious emotion of love, would at least relegate criminal abortion to the class of the essentially depraved.

TOBACCO AS A LUXURY.

A STRONG and standard medical authority, the *Lancet*, has recently come out emphatically in support of tobacco as a luxury, which has been proved in the Transvaal to have great power in enabling men to bear hunger and fatigue. This will horrify those enthusiasts who persuade themselves and try to persuade others that tobacco is of the Evil One as much as intoxicating drink, notwithstanding the obvious fact that tobacco at its worst does less harm to body and soul than drink at its best. But where the *Lancet's* position will stagger people who read the papers is in its opposition to the copiously published opinions of doctors and laymen that smoking is useless, deceptive, and hurtful, so much so that certain of those funny States across the Atlantic have legislated against the practice. We should have more confidence in the opinion of the *Lancet* were it not that only one generation ago equally high medical authorities were unanimous in commending alcoholic stimulants in a way which scarcely one medical man of repute would do now, and that they were always ready to prove what they said.

DEPUTY SURGEON-GENERAL GEORGE**MACKAY, M.D., J.P.**

THE *Edinburgh Medical Journal* says:—By the death of Deputy Surgeon-General GEORGE MACKAY on the 20th of November, Edinburgh has to deplore the loss of one who played no minor part in the branch of medicine chosen as his role in life, and who, after retirement, continued to employ his time for the good of his fellow-men.

Fittingly a child of the army, GEORGE MACKAY was a son of Major MACKAY, of H. M. 70th Regiment, then (in 1820) stationed at Aberdeen, and a grandson of Colonel MACKAY, of Bighouse. While still of tender years, his father's regiment was ordered to Canada. Hence he received his early education in that colony, but he was later sent to the Madras College at St. Andrews. Resolving to enter the medical profession, he entered Edinburgh University, and graduated in 1841 as M.D.

Hereditary instincts it may have been which caused him to aspire to a military career; and soon after graduating, he applied for and obtained a commission as surgeon in the Honourable East India Company's service. During the course of his duties in this capacity he saw active warfare in the campaigns against the Mahrattas in 1844, and in Burmah in 1852. The medal and clasp for Pegu were conferred on him, and he was specially thanked for his services during the campaign.

After this last war service he settled at Coimbatore as a civil surgeon, later on proceeding to Ootacamund. Raised to the rank of Surgeon-Major in 1864, those in authority marked their appreciation of his abilities by appointing him to the post of Examiner of Medical Accounts in the Military Finance Department—an appreciation evinced further by his subsequent appointment to the Secretaryship of the Madras Medical Fund and Military Fund.

Privileged to read a record of service personally written by the late Deputy Surgeon-General, the writer is able to testify to the very varied experiences which fell to his lot, and the constant devotion to duty characterising his entire career. Among a number of points of interest, the fact of his having in 1845 had the courage to attack the then customary and universal method of treating cases of heat apoplexy by copious bleedings and detergents—notwithstanding the almost invariable fatal result—by advocating and successfully applying a method of treatment of cold to the head, moderate stimulation, and a following purge very similar to that adopted generally at the present time, bespeaks a man of mettle.

In India he was one of those who first advocated more thorough training of native medical subordinates—a movement leading in time to the institution of the Madras Medical College. His philanthropic turn of mind induced him to fill many honorary posts in societies formed for the public weal in India in addition to his official work. Having served for practically thirty-three years, thirty of which on actual duty, he retired in 1875, first settling in Inverness, but latterly residing in Edinburgh. His leisure time he occupied in aiding the Soldiers' and Sailors' Home, as well as many other philanthropic enterprises.

CERTAIN OBSERVATIONS ON THUNDERSTORMS.

THE *Indian Meteorological Memoirs* (Part ix. vol. vi.) contains an interesting discussion of the thunderstorm observations recorded in 1897 at ten selected stations of this country, by Mr. W. L. DALLAS, as will be observed from the following note reproduced from *Nature* (August 23, 1900):—

"The results for the year have been divided into five-day periods. The storm-frequency varies considerably in different parts, but, generally speaking, the number of storms is unimportant during February and the early part of March; but after the middle of March the thunderstorm season commences, and continues until the middle of October, the maxima occurring towards the end of May and September. After October 23 no storms are reported. Storms are much more frequent in the afternoon than in the morning, and when a storm occurs in the forenoon it is followed, almost without exception, by another in the afternoon. There is a belief that the damage done by lightning in the tropics is slight compared with that done in temperate zones, and the fact that at ten observatories in the year in question only four instances of damage being recorded gives support to this belief."

As observed before, electrical variations and disturbances form an important part among meteorological phenomena, and meteorology has a great bearing on morbi-geneesis. It is therefore necessary for our profession that observations like the above should be made and recorded on an extended basis.

SALTPETRE IN INDIA.

MR. J. E. O'CONNOR, Director-General of Statistics, in a report on mineral production in India, states that saltpetre, which is largely produced for export, was in former years of much greater importance, than now, the decline in its employment for gunpowder and the preservation of food having led to a restriction of production. The average production, of which the bulk is made in Behar, amounts to only about 250,000 cwt.; of this a considerable proportion is exported after refining in Calcutta.

SHORT ITEMS AND PERSONALITIES.

The Church Mission in the Punjab is being reinforced by Dr. Sidney Gaster, M.A.C.S., B.S.C.P., who is expected at Dera Ghazi Khan in January, and who has been working in London in connection with the Islington Medical Mission; and by Miss Minnie Gomery, M.D., at Islamabad. Dr. A. H. Browne probably returns from famine work in the Bhili country to Amritsar in January. In Amritsar, Major H. A. Haines, B.A.M.C., is a valued helper in the work.

The habit of drinking petroleum is spreading to an alarming extent in many districts of France. It has apparently been prevalent for some considerable time without being recognised, and is quite as persistent a habit as alcoholism. Though petroleum does not make the drinker brutal, but morose, there is no doubt that, so far as the victim of the vice himself is concerned, it is even more deadly than ordinary drunkenness.

We are requested to state that the Central Committee of the Dufferin Fund has at the moment several applicants upon its list of candidates for employment who are available for early employment. Native States and Local Committees who are in need of the services of Lady Doctors, Assistant Surgeons, or Hospital Assistants, are invited to apply to Colonel E. H. Fenn, Honorary Secretary, Viceroy's Camp.

There were 2,463 reported plague deaths in India for the week ending the 5th January, as against 1,386 last year during the same period. Of these, 1,500 occurred in Patna, Saran, Monghyr and Gaya districts in Bengal. The Bombay Presidency reported 261 deaths, Mysore 414, and Bombay City 171. There were 25 deaths in the Madras Presidency, 14 in Hyderabad State, and 11 in the Punjab.

Stuttering is considered contagious in Germany. There are over 80,000 stuttering children in the schools of that country, and the number is steadily increasing.

It is said by his friends in Calcutta that Lieut.-Colonel R. D. Murray, I.M.S., the "Professor" of Surgery at the Medical College Hospital, goes home "to qualify" for his post in March. He will, it is reported, write his "thesis" for his M.D., and "take" the Fellowship of the Royal College of Surgeons of Edinburgh "by election." Why not by "examination"?

Miss A. E. Kemp, of the Medical School, Ludhiana, writes: "Dr. Edith Brown is proceeding to England per S.S. *Ellis* on January 27th, for a much needed rest. Dr. Eleanor Dodson, whose death from cholera was erroneously reported in an Indian paper some time ago, has recovered, and hopes to sail for home in March."

We understand that the Government of India will shortly partially reopen the granting of leave to officers of the Indian Medical Service, but it is impossible to reopen the granting of usual leave just now in consequence of a large number of officers now employed in China as well as on famine and plague operations in India.

The hospital ship *Gwalior*, according to present arrangements, will sail from Calcutta for China on the 6th proximo. Several improvements have been carried out on board, and special accommodation for European patients has been provided.

A scientist, after years of experimenting, has succeeded in colouring the plumage of birds by the administration of food mixed with aniline dyes. In this way he has, it is stated, produced red and blue pigeons, and has imparted to canaries all the tints of the rainbow.

The native Hospital Assistant in Bangalore, who recently created a certain amount of sensation by professing the possession of a perfect cure for plague, has been examined by the Medical Board under the presidency of the Senior Surgeon to the Mysore Government, and pronounced insane.

The Government of India have sanctioned the issue of two field stretchers to each hill depot and standing camp in the hills, in order that men may be trained as stretcher-bearers during the summer months.

Plague is raging in all parts of the town of Monghyr, and in consequence about half of the residents have already left it. In Basudeopore and Madhupur many houses where plague cases occurred have been burnt down.

The Government of India is making all arrangements for the Field Hospital with the Ogaden-Somali Expedition, and some Volunteer Medical Officers as well as hospital assistants will be taken if required.

The Pasteur Institute at Kasauli is working well, and since its opening more than 110 patients have undergone the treatment under Major Semple, B.A.M.C.

The Chinese never wear wool—not even in the depth of winter; and, generally speaking, the entire population clothe themselves in cotton all the year round.

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The *Indian Medical Record* offers the following prizes:—Rs. 10 to Rs. 16 for a good Original Article; Rs. 5 to Rs. 10 for a good Clinical Report. Competitors must be subscribers to the *Record*.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

Current Medical Literature.

MEDICINE.

Epilepsy: Its Etiology and Pathology.

AFTER reviewing briefly the various theories of the causation and pathology of epilepsy, W. HOUSE (*Phil. Med. Jour.*), believing that "like causes produce like effects," compares the symptoms of epilepsy with those of diseases which produce or are accompanied by convulsive seizures, resembling more or less the seizures of epilepsy. These diseases are hysteria, tetany, the eclampsias, alcoholism, cerebral hæmorrhage, and the apoplectiform and epileptiform convulsions of general paresis. The pathology of the three latter conditions is well known, and in certain respects the lesions are of a similar nature. The symptoms of an epileptic seizure, of an epileptiform parietic convulsion, of an alcoholic convulsion, and of cerebral hæmorrhage, present a marked similarity, so much so that sometimes it is difficult to make a differential diagnosis. Symptoms of cerebral pressure are present in these three conditions, and also in epilepsy. In the brain of an alcoholic there is an excessive quantity of cerebrospinal fluid, the ventricles are distended, the brain-substance drips with fluid, and the membranes are dropsical. This is called the "wet brain." In general paresis the ventricles are distended with fluid, there is an increased quantity of fluid in the subdural space, and the whole brain is surrounded with an excessive quantity of turbid cerebrospinal fluid. In both these conditions the excessive fluid seems to the author to be the logical cause of the pressure symptoms recognised in convulsions from these diseases. HOUSE has witnessed the autopsies of five cases of status epilepticus, and in each instance there was found an excessive quantity of cerebrospinal fluid. Arguing from analogy, HOUSE is forced to the conviction that this increase in the quantity of cerebrospinal fluid must bear a causal relation to the convulsions of epilepsy. According to physiologic findings, if the cerebrospinal fluid be suddenly withdrawn, convulsions may ensue; if rapidly increased, coma may be produced. From observation of over two hundred epileptics, and comparing their symptoms with those of sixty alcoholics and those of a large number of parietics from the findings in the above five autopsies, and from an analysis of recent literature, he concludes that: (1) There is no record of pathologic findings which logically explain the symptoms of epilepsy. (2) An increase of cerebrospinal fluid would readily account for the seizures. In many instances it is analogous to the marked increase of fluid in the crania of alcoholics and parietics, and is not dissimilar in clinical effects to the more localized lesions of hæmorrhage or abscess. (3) This fluid, physiologically subject to more or less variation in quantity from day to day, is fully capable of pathologic increase, and from analogy must bear exciting relation to the convulsion. (4) Its increase is probably gradual, and to this we may ascribe the *auræ*. (5) Its absorption probably begins with the third stage of the convulsion.

(relation and coma), and if this fails, repeated convulsions (status epilepticus) ensue. (6) Its superabundance may be due to lymphatic spasm, or to marked disturbance of equilibrium between lymphatic and general circulatory activity, which may be favored by heredity, toxæmia, or any of the recognized predisposing causes. (7) This creed applies to the so-called idiopathic epilepsy, as distinguished from the convulsion of JACKSONIAN epilepsy, although even in such cases this condition will help to explain some otherwise unexplainable symptoms.

Acetonuria.

THE most useful clinical test for acetone in the urine, according to RONSSE (*Annales de gyn. et d'obstét.*), is that of LUGOL, which is performed by adding a few drops of LUGOL's solution to the first 10 c.c. obtained by distilling 400 c.c. of fresh urine, then adding sodium hydroxide solution until the brown color disappears. In the presence of acetone a milky precipitate of iodoform is produced, and may be recognized by its violet coloration with caustic soda and thymol, or by its yellow hexagonal crystals under the microscope. Acetone is found in small quantities in the urine normally, and it occurs pathologically in diabetes, cancer, phosphorus or chronic lead-poisoning, certain digestive troubles, hysteria, in prolonged fevers, the acute exanthemata, in eclampsia, and during pregnancy. It is especially marked during prolonged labor, and many writers claim that it indicates death of the fetus, but in a study of fifty-three cases RONSSE finds that it has no such significance.

Early Symptom of Measles.

SLAWYK, of HEUBNER'S clinic, draws attention to the eruption present in the mouth during the early days of measles, first described by KOPLIK. It consists of shining red spots, in the middle of which there are very minute bluish-white efflorescences. SLAWYK says that KOPLIK'S spots have not received the attention which they deserve, and that they represent an absolutely trustworthy and early indication of the disease. During last winter an epidemic of measles broke out in some of the clinics of the Berlin Charité. These cases, along with those of HEUBNER'S clinic, numbered 52 cases, and in 45 of these KOPLIK'S spots were observed. In two of the remaining cases the patients were too ill to permit of a satisfactory examination of the mouth. The spots appeared on the mucous membrane of the cheek and sometimes of the lips. They are mostly few in number. A bright light is necessary, as they are not visible in a yellow light. They practically never run together. They are distinguished from thrush by their colour and their rounded contour. They may be picked off with the forceps without pain or bleeding, and they are then seen under the microscope to consist of large masses of epithelium undergoing fatty changes. They have not been observed in other acute illnesses. In every case where they were seen the measles rash followed, so that whenever they were present the child was at once transferred to the measles ward. KOPLIK'S spots appear on the first or second day of the disease, and increase in numbers up to the time of the skin eruption; they usually further remain for three or four days, so that they last from three to six days. They produce no discomfort. In some cases of measles followed by a stomatitis they were absent. No prognostic significance can be attached to them, as they were present both in mild and severe cases. Details of eight illustrative cases are given.—*Brit. Med. Jour.*

SURGERY.

Post-marital Amblyopia.

JONATHAN HUTCHINSON, F.R.S. (*Archives of Surgery*), reports three cases of young, robust men who developed sudden amblyopia amounting to almost total blindness within from ten days to three weeks after excessive sexual intercourse. "These three cases, so remarkably alike, seem to show that this form of amblyopia, like that due to smoking, is usually recovered from, and is not liable to relapse. It differs from tobacco amblyopia, in that it is much more rapid in its development, and in that it passes to a much higher degree. Tobacco amblyopia usually requires months to develop, and rarely approaches blindness. Recovery from it is also much slower. In both forms, however, there are possibly a few cases in which the disease advances to complete and permanent blindness. Possibly this happens when the cause is never suspected and never removed. The cases under notice are not, as a rule, attended by any failure of sexual power, nor are the tobacco cases attended by any distaste for smoking or consciousness of the patient that it is injuring him." This affection Mr. HUTCHINSON terms "post-marital amblyopia." Possibly the failure of sight sometimes observed after parturition is similar. Rapidly produced and all but complete blindness without visible changes, and rapid and complete recovery, are features of all. Sexual excess under any circumstances may induce failure of sight and derange the nutrition of the eyeball; but the post-marital form of amblyopia is quite distinct, and never occurs except in those newly placed under conditions tempting to excessive indulgence.

Radical Treatment for Curvature of the Penis.

DR. EUGENE FULLER says:—The patient, a young man, at twelve years of age had contracted gonorrhœa from his nurse. Tight stricture followed, necessitating internal urethrotomy. Much inflammation ensued, and an indurated area caused the urethra to stand out like a bow on erection. The perineum was laid open from just above the rectum on to the uplifted scrotum. The urethra was then cut across very obliquely in the bulbous region. The penile end, in order to facilitate its retraction, was dissected free from the surrounding tissues for three-quarters of an inch, after which the penis was pulled up and bent back over the pubes, thus inducing a maximum separation of the cut urethral ends. The penis remaining in that position, the penile end of the urethral roof was stitched with fine catgut to its surrounding tissues, while a longitudinal half-inch cut was made along its floor. A perineal vesical drainage tube was inserted, and the author's usual urethral tube adjusted, the perineal incision being sutured. The penis was kept bent back upon the pubes by plaster. The wound healed well and the operation was a distinct success. Two years afterwards the patient had a good free stream on urination and a penis nearly straight on erection, enabling the sexual act to be accomplished.—*New York Med. Rec.*

Chronic Tuberculous Peritonitis in Childhood.

M. EUGENE TERRIEN (*Presse Médicale*) says that these cases may be divided into three clinical stages: (1) The stage of irritative exudation, that is, of free ascites; (2) the period of membranous formation, corresponding to the encystment of the ascitic fluid; (3) the stage of agglutination of the viscera, corresponding to the fibrocaseous condition. The last form is only exceptionally seen. The author speaks of the remarkable enhancement of recovery by opening the abdomen in the ascitic stage of the disease, but decries laparotomy

in the last stage of the disease. If a fluid is shown to be present, simple puncture is advised, followed by lavage with boiled water, or an injection of camphor naphthol, as recommended by RENDU. If the puncture reveals a beginning encystment, laparotomy must again be performed at once. Sometimes hygienic measures and drugs will suffice to bring about a cure in the first stage of the disease.

Recent Progress in Treatment of Scoliosis.

DR. A. HOFFA (*Centralbl. f. Chirurgie*) describes his success in mobilising the rigid scoliotic spinal column with suitable apparatus, the general and special gymnastic exercises by which he stimulates and restores strength to the muscles of the back, until the patient can voluntarily assume the normal position, and the apparatus which he uses to hold the spine in the normal or over-corrected position. This apparatus consists of an iron pad covered with leather, which is applied to the kyphos and held by a leather strap over the shoulder, and a stout iron rod which screws up and down in a threefold slide at the base of the spine, modifying its position in three different directions. The slide is fastened immovably in a long corset which embraces the pelvis. The firm support afforded by this is the chief feature of the apparatus. The article is profusely illustrated.

Inflammation-producing Agents in the Treatment of Wounds.

G. MEYER takes the stand that absolute asepsis is impossible, and that, no matter how nearly perfect the operative technique, there will still inevitably be some infection of the wound. Inflammation is now universally regarded as a conservative process, and its production in a mild degree means an increased power of resistance of the organism through the more active formation of bacterioid toxins. Arguing along these lines, he advocates the use of some mildly irritant application to the neighbourhood of the wound; tincture of iodine answers every purpose, and gives the required stimulus without in any way jeopardizing asepsis.—*Centralblatt für Chirurgie*.

Coxa Vara.

DR. O. B. KENTLEY (*The Lancet*) defines coxa vara as a deformity of the upper epiphyseal region of the femur, in which the caput femoris sinks to a lower level than normal, in extreme cases almost touching the trochanter minor. He believes that this affection is closely associated with, if not always due to, rickets. He states that he has obtained better results from removal of wedge than from linear osteotomy. Author claims priority in description and treatment of coxa vara by virtue of an article published in September 1898, showing relation between rickets and coxa vara.

Danger of Lumbar Puncture.

WE are too apt to overlook the fact that considerable danger is often connected with procedures that are simple and apparently harmless. GUMPERT (*Deutsche medizinische Wochenschrift*) adds two cases of his own to the fifteen of sudden death after lumbar puncture that he finds on record. Most of these deaths occurred in cases of cerebral tumor.

OBSTETRICS AND GYNÆCOLOGY.

Management of Pregnancy occurring in Connection with Myo-Fibromata of the Uterus.

ALEXANDER J. C. SKENE, M. D., LL. D., (*Transactions of the Brooklyn Pathological Society*) says: "In the submucous variety of myo-fibromata pregnancy is exceedingly rare, less so in the interstitial, and most common when the tumor is of the subperitoneal variety."

The size and location of these tumours are also the chief factors in causing the complications which demand special treatment. The presence of small tumours of the sub-peritoneal variety does not, as a rule, seriously complicate pregnancy or labour. It is safe to allow the gestation to go on in such cases. In the early months, conditions may arise which require attention. The neoplasm sometimes causes displacement of the uterus and prevents it rising out of the pelvis as it increases in size. In this way the uterus becomes incarcerated in the pelvis, and if not promptly relieved, the symptoms become urgent. If the uterus is raised and kept in position, the gestation may go on to time. Labour is not interfered with when the tumour is separated from the wall of the uterus (by pedimentation) sufficiently to permit equal muscular contraction. When the tumour is closely connected with the muscular wall of the uterus, expulsive contractions are inefficient and aid to delivery is required.

Large tumours, especially when connected wholly or in part with the middle layer of the muscular coat of the uterine wall, are more dangerous to pregnant women. Such cases never go to the full times of gestation. They either miscarry or die from secondary affections. Miscarriage under such circumstances is very dangerous. Hemorrhage, both during and after the delivery, is liable to be alarmingly profuse, as the contraction of the uterus is imperfect. It may be necessary to pack the uterus to prevent the patient bleeding to death. Sepsis is very liable to develop from an incomplete emptying of the uterine cavity.

Myo-fibromata of the uterus in relation to child-bearing may be classified as follows:—

First, submucous tumours, large or small, cause sterility as a rule.

Second, small subperitoneal myo-fibromata do not always cause sterility, nor complicate child-bearing to a very dangerous degree.

Third, interstitial tumours, and large subperitoneal tumours closely connected with the muscular tissue of the uterus, do not cause sterility in all cases; but they are most dangerous complications of gestation, because they predispose to miscarriage and render delivery always difficult, often impossible, and always exceedingly dangerous.

With regard to treatment, the first class may be disregarded in this discussion.

The second class requires attention in the early months of gestation, in order to keep the uterus in position and aid in its escape from the pelvis up to the abdominal cavity.

The third class demands hysterectomy as the surest means of saving them. The danger attending miscarriages is so great that few survive the peril, and those few are left with their tumours, which may eventually require hysterectomy.

The time to operate is still a question for consideration. In general terms it may be stated that when gestation has been recognised in cases of the third class given above, the operation should be done. Some who would refrain from sacrificing a living fetus prefer to wait until the first indications of miscarriage appear.

Placenta Prævia.

THE *British Medical Journal* says:—AMADEI AND FERRI reported to the Italian Gynecological Congress a series of 97 cases of placenta prævia in 5,136 cases at the Milan Maternity Hospital, a proportion of 1.89 per cent. Eleven were in primiparæ and 86 in multiparæ, and in only 24 cases did the mother reach the full term, all but 1 of these 24 being marginal. In five cases the mother died:

(1) Severe anæmia due to hæmorrhage from the placental site and from a laceration of the cervix; (2) embolism on the second day; (3) embolism during intra-uterine irrigation after delivery; (4) severe anæmia during podalic extraction; (5) acute pleuro-pneumonia on seventeenth day, after dilatation of cervix and use of forceps. The treatment was varied; in two cases it was medical only. Plugging was used in ten cases, loss of one mother and one child; rupture of amnion in 16 cases of longitudinal position of the foetus, no mother and five children lost; in two cases of rupture of the sac after external version one child was lost. In many cases the rupture of the amnion failed to stop the hæmorrhage. Podalic extraction was practised in cases of marginal placenta prævia, where the cervix was more or less dilated, enough to permit the bringing down of the limb. In a case of central placenta prævia, TARNIER'S method was used. (In this hospital continuous traction by means of a weight is often adopted to secure slow extraction with great advantage to the mother.) Turning was done 42 times: 23 by the classical method and 19 by BRAXTON HICK'S method, with eight and seven foetal deaths respectively. Forceps were used in seven marginal cases; in one case the mother died (pleuro-pneumonia). There were three craniotomies in cases of dead foetuses with excellent results as regards the mother.

Operative Treatment of Procidentia Uteri in Elderly Women.

A. LAPHORN SMITH says that in the majority of these cases we find a lacerated cervix, and that this, together with a lacerated perineum, forms the initial lesions which brings about the prolapse. The laceration prevents involution of the uterus, and the latter organ, instead of becoming small and light, remains large and heavy. Owing to the too general practice of keeping women lying on their backs after confinement, the subinvolved uterus becomes a retroverted one by gravity, and when the woman gets up the bowels fall in front of the womb, and the round ligaments are unable to pull the fundus forward again, so that the uterus is forced on to a lower plane in the pelvis. There being no perineal support to oppose both gravity and intra-abdominal pressure, the cervix appears at the vulva, bringing the bladder and rectum with it, causing a chronic cystitis and a dragging pain in the back. In regard to operative measures, we may follow one of two plans, according to the degree of the prolapse and the size of the uterus. If the latter is small and not far enough out of the body to become ulcerated, the safest operation is to make a small incision in the abdomen, and catching the fundus with the bullet forceps, draw it up to the incision and scarify the whole anterior surface of the fundus, and then to sew it to the abdominal wall with buried, chromicised catgut, after which the vaginal outlet is narrowed by a large anterior and posterior colporrhaphy. If, however, the uterus is very long, sometimes the sound measures seven or eight inches deep, and especially if it is badly ulcerated, it is better to amputate all but the upper two inches of it, and then to narrow the outlet.—*Canadian Practitioner and Review*.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Two Cases of Extraordinary Movement of the Tongue.

DR. F. PLÜDER (*Arch. f. Laryng. u. Rhin.*) describes the two cases coming under his observation of a condition which has been described before, but which is always of interest. One of these patients came to him with a description of a structure which the patient could feel with the end of his tongue. The description which the patient gave was so distinctly that picture which is ordinarily seen by the physician in examining the posterior nares, viz., a description of the locality of the inferior middle turbinate location of the eustachian tube and of ROSENMULLER'S groove, that there was no doubt but that the patient was in the habit of introducing the tip of his tongue behind the uvula and into the nose. This was proven by direct observation, for the end of the tongue could be seen by looking with a speculum and light through the nose. This patient, since his twelfth year of life, had been in the habit of introducing his tongue into the nasal pharynx, and stated that he was in the habit of doing so for the purpose of making manipulations which cleansed the parts.

The second patient was 24 years of age, a merchant, who was intensely neurosthenic, with various nervous manifestations. It was possible in this patient, while the mouth was open, to introduce the tip of tongue into the nasal pharynx.

These cases must be regarded as physiological cases, in no way the result of disease. Such an unrestricted movement of the tongue depends either upon the patient having more or less absolute control over the muscular movement of the tongue upon the floor of the mouth, allowing more than the ordinary amount of movement, or upon the presence of a very long frænum.

Cortical Localization of Sight and Hearing.

CLARENCE A. GOOD (*Amer. Jour. of Med. Sc.*) reports the case of a woman fifty-five years old. About seventeen years previous to her admission to the asylum she had fits at night. These lasted for about two years. When admitted to the hospital she was practically blind. The pupils were equal, reacting to light. She was deaf. The sense of smell was keen. The speech was drawing and the gait lame. She was slightly paretic in all limbs. Cutaneous sensibility was normal so far as could be determined. Mental action was slow and incoherent, memory nil. From April 1892, to her death in November 1893, she suffered from convulsions. The brain was carefully examined, and the writer draws the following conclusions: (1) Destruction of the cortical visual areas will lead to a degeneration of the cells in the geniculate ganglia and the corpora quadrigemina, and to a degeneration of the nerve fibres of the optic tracts and nerves. (2) The macula lutea of one eye is in connection with the opposite angular gyrus.

Granular Degeneration of the Red Blood Corpuscles and its Significance in Clinical Pathology.

MUCH attention has been given to the shape, size, and colour of the red blood corpuscles—generally called erythrocytes when spoken of under one name—and much valuable information as to anæmia can be obtained from them; but few observations with a practical clinical bearing have, so far, been made upon the contents of the erythrocytes other than the hæmoglobin. GRAY'S (*Amer. Jour. of Med. Sc.*) has entered this field, and points out that the

erythrocytes frequently show basophile granules. He thinks that they include a degenerative change in the red cells, due to a degeneration in the blood. They are seen only in cases which lead to degeneration of the blood, and vary directly therewith, increasing or diminishing as it increases or diminishes. Hence they may form an index of the patient's progress. They are probably due to the action of deleterious substances in the blood, and are seen in the following diseases:—(1) *Chronic lead poisoning*, often before any other sign or symptom appears. (2) *Malaria*—They are also to be found in Europeans long resident in the tropics, who have not suffered from malaria; but in such cases the granules are larger and not so numerous as in malaria. (3) *Mang fevers*, as he found it in mice, in which he produced a high temperature artificially. (4) *Pernicious anemia* and *late lymphadenoma* and *leukemia*, but not in chlorosis. (5) *Cancer of stomach or intestine*, where absorption takes place. (6) *Septic diseases*—It was absent from phthisis pulmonalis, unless suppurating cavities were present. A number of other diseases, such as syphilis, mercurialism, chronic nephritis, chronic hepatic diseases, diabetes, typhoid and diphtheria, do not cause it.

Micro-organisms of Vaccine Materials.

J. B. BUIET records his experiments made in the course of the last fifteen years to determine the cause of opacity of vaccine lymph. All he is prepared to say is that this opacity was due to spores from unknown sources, of a yellow, brown, white, or orange color, even in specimens which had been kept fifteen years. These he regards as the active ingredient of the lymph. Some authorities have isolated these spores and inoculated them into calves, the virus from which would "take in children, but direct inoculation of the spore products into the human being were failures.—*New York Med. Rec.*

Acid-resisting Bacilli in the Lower Animals.

MURRAY COWIE (*Jour. Exper. Med.*) communicates a preliminary study on this subject, in which he comes to the following conclusions:—(1) Acid resisting bacilli are found in many of the lower animals, more especially the horse, cow, dog, guinea-pig, and white rat. In the case of the rabbit and cat no such organisms were detected. (2) Many of these acid-resisting bacilli resemble the tubercle bacillus and the smegma bacillus of man. (3) The acid-resisting organisms are undoubtedly of different species, and there is good reason to believe that the term smegma bacillus denotes not a definite species, but rather a group of bacilli having common staining properties. His results need not be given here in more detail, except in the case of the cow, as they go to still further demonstrate the comparative difficulty and unreliability of all attempts to demonstrate microscopically the presence of tubercle bacilli in milk. In the cows chosen there was no evidence of any tuberculous or other disease of the teats or udders, and they had passed the tuberculous test. Scrapings from the moistened teats were stained as for the tubercle bacillus, and many bacilli were found, some of which resembled the tubercle bacillus very closely. Prolonged exposure to the acid did not cause their decolorization. In all, eight cows were examined for acid-resisting bacilli, with positive results in five, negative in three. Eight preparations were made from the sediment obtained from a centrifugal separator. Each specimen showed many acid-resisting bacilli, some of which might easily be mistaken for the tubercle bacillus, particularly if decolorization with methylated spirits was not employed. COWIE'S results serve to strongly support the opinion of experts, that the only reliable method of detecting the tubercle bacillus in milk is by animal inoculation.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Prophylactic Measures in Malarial Districts.

FERMI and LUMBAO (*Centralbl. f. Bakteriöl. u. Parasitenk.*) describe the measures adopted for freeing the town of Sassari from mosquitoes. There is first the search for the larvæ. They were most frequently found in the cellars, cisterns, washing-troughs in the yards, etc., of houses known to be infested with mosquitoes. They observed that in winter *Culex pipiens* generally laid its eggs in the cellars or cisterns, on account of these places being warmer at that season. In the case of water not used for drinking purposes they used petroleum oil, 5 c.c. for each square metre of surface. This spreads uniformly over the surface, forming a thin impermeable layer, quite sufficient to prevent the larvæ breathing. In summer, owing to evaporation, the protective covering did not last more than six days, but since the larvæ take fifteen to twenty days to develop, the layer of petroleum need not be renewed oftener than once a fortnight. In cisterns and wells with drinking water they used the powdered chrysanthemum flowers, as recommended by CELLI, and with excellent results.

For killing the fully formed mosquitoes in a house, they found gaseous chlorine the best means, but it could only be used in cellars, unoccupied houses, or when the house could be vacated for some hours during the day. In dwelling-houses they prefer fumigation by means of setting fire to a mixture of ground chrysanthemum, pellitory, valerian, and saltpetre. The mosquitoes were found on the walls of the cellars or in corners near the windows. In sleeping or living-rooms they searched for them near the bed and windows. Sometimes they only found them by setting fire to the fumigating powder, which brought out the mosquitoes from concealment to the windows, evidently in the hope of escaping.

The results got at the prison settlement of the Island of Asinara near Sardinia are striking. (*Ztschr. f. Hyg. u. Infektionskrankh.*) Larvæ were killed by petroleum oil; horse ponds and surface wells were pumped dry every ten or fifteen days to keep the surface soil as dry as possible. In the houses of the officials, etc., the chrysanthemum powder was burned to kill the mosquitoes, but in the cells, etc., of the prison, chlorine was developed from chloride of lime and sulphuric acid. The cells were large, and suited for about forty occupants, and were vacated by the prisoners during the whole day. For preventing the entrance of mosquitoes, a strong durable curtain, stretched on a frame, was placed in front of each window space. Each morning the chambers were treated with chlorine gas, then after an hour or two the windows were opened for ventilation.

The following are the results:—Total absence of *anopheles* from any of the rooms, and a great decrease in the numbers of *C. pipiens*. There were no newly infected cases of malaria, while in the previous year there were forty such cases.

MATTEI (*Centralbl. f. Bakteriöl. u. Parasitenk.*) describes a very successful experiment at Valsavia, a railway station on the line from Catania. It is situated in a strongly malarial district, consisting for the most of clayey land under cultivation, and apt in dry weather to become cracked and fissured, and these fissures, by the over-flowing of the river or heavy rainfall, are readily converted into pools. Towards evening the mosquitoes come out, and increase greatly as twilight sets in. The numbers are so enormous that they appear to form clouds, and, entirely surrounding the person, make successful attempts at protection very

difficult. The time of year (October 7 to November 8) most favourable for malarial attack was chosen. The weather was warm, and as the first rain of the season had fallen, the soil was being prepared for sowing. This time is always dreaded by the inhabitants.

The experiment was carried out in a large shed, built directly on the ground, and with its windows and doors replaced by wire-netting, fine enough to keep back any mosquitoes. It was conducted on four men, between 35 and 45 years of age, none of whom had ever suffered from malaria, and whose blood was from time to time during the experiment examined for the malaria parasite, but always with negative results. They travelled daily to and from Catania, where they were employed on the railway. They entered the shed about six in the evening and left about eight in the morning. The inside of the shed was whitewashed to facilitate the detection of any mosquitoes that might get in, either on the men themselves or on opening the door for their entrance. Immediately on entering for the night, the walls, bedding, etc., were examined for mosquitoes, some insect powder was burnt, and the inmates rubbed their bodies with turpentine as an additional precaution. None of the men were attacked with malaria, and though kept under supervision for four months after the experiment, none of them showed any symptoms.

Both *C. pipiens* and *anopheles* are found at Valsoria.

Meat Eating vs. Tuberculosis.

EXPERIENCE at the Zoological Gardens seems to indicate that meat eating is a good preventive of tuberculosis, but that this is not a final conclusion is evident from the fact that some of the meat eating animals do die of this disease. The figures are as follow:—The disease afflicts animals nearly half again as much as birds. The mortality from tuberculosis among the herbivorous animals is 26 per cent., while among the carnivora only 3 per cent.; of the grain-eating birds 30 per cent. succumb to the disease, as against only 11 per cent. of the meat-eaters. It is possible that, wholly aside from the natural diet, there is an original inherent protection against tuberculosis in meat-eaters that the herbivora do not possess, or it is possible that the animal food of the carnivora contains some antitoxine that vegetables are devoid of.

Examination of Stomach Contents.

B. A. BASTENO states that the simplest and best test-meal consists of a good-sized hard breakfast roll without butter, taken on an empty stomach. The roll should be thoroughly chewed and washed down with twelve ounces of water. At the end of an hour a stomach-tube is passed. If fermentation is present, there is a layer of foam on the surface, and there is an odor of butyric and other fatty acids. Mucous may be noted by lifting it up on a loop of wire. Of the filtered contents, 5 c.c. is placed in a porcelain dish with a drop or two of one-half of one per cent. alcoholic solution of dimethyl-amido-azobenzol. If this becomes pink, it indicates the presence of free hydrochloric acid. The Congored test may then be tried. If blood is suspected, it may be tested for by adding glacial acetic acid and then ether to a bit of stomach contents. The mixture should be shaken, set aside, and the ether poured off. To this ether should be added a few drops of tincture of guaiac and then a like amount of peroxide of hydrogen. A dark-blue color indicates blood. The writer then indicates the proper diet for various conditions of abnormal acidity. A suspected ulcer contraindicates the use of the stomach-tube, in which case the vomitus may give valuable information.—*Medical News*.

THERAPEUTICS & PHARMACOLOGY.

Venesection in Heat-stroke.

C. KLEIN (*Munch. med. Woch.*) observed a case of heat-stroke where venesection gave prompt relief. A powerful, temperate, and healthy coal-heaver, aged 28, acted temporarily as stoker on boardship. After a few hours' work he suddenly became unconscious and was seized with violent general convulsions. He was brought on deck, ice was applied, and artificial respiration was carried out as far as the convulsions permitted. Chloroform inhalation was tried, but abandoned, as it had a bad effect on the respiration. The convulsions increased in violence, and four sailors could hold the man with difficulty. The pulse, at first hard and full, became thready and intermittent; the respiration became more and more laboured, and there was great cyanosis. The man was evidently dying of oedema of the lungs; KLEIN therefore abstracted about 8 ounces of blood. The effect was immediate; the pulse and respiration improved, the convulsions gradually ceased, and the cyanosis was replaced by pallor. After a ten-hours' peaceful sleep the patient awoke weak, but hungry, and in a few days had recovered completely.

Use and Abuse of Potassium Iodide in Ophthalmic Practice.

THE following conclusions are presented by ALBERT RUFUS BAKER: (1) Iodide of potassium should generally be administered in rapidly increasing doses until from gr. i.-d. is given daily. (2) The drug should always be given after eating, and well diluted with water. (3) Frequent hot baths are essential to the best results in the use of the remedy. (4) Not infrequently large doses will be tolerated when smaller ones cannot be well taken. (5) The use of the large dose is not limited to syphilitic cases. (6) Large doses are indicated in optic neuritis, ocular paralysis, choroiditis, serous iritis, and in relapsing iritis, cyclitis, and interstitial keratitis. (7) It is contraindicated in gray atrophy of the optic nerve and in most cases of post-neuritic atrophy. (8) Albumin in the urine, generally speaking, is a contraindication for large doses of iodide. (9) Young children do not take the iodide kindly, and it should be administered cautiously. (10) The remedy is of doubtful value in early syphilitic iritis. (11) Large doses are of doubtful utility in the removal of post-operative exudates, but should be given further trial.

Formalin in Hyperidrosis of the Feet.

ADLER (in the *Therapeutical Supplement of the Deutsche medicinische Wochenschrift*) recommends undiluted formalin as the best treatment for perspiring feet. The feet should be well painted with or soaked in formalin for a few minutes and then allowed to dry in the air. Perspiration is entirely suppressed, owing to cauterisation, or rather tanning of the epithelium lining the sweat glands. The treatment is inapplicable where there is redness and maceration of the skin, as it causes burning, which makes walking difficult. As the thin cauterised layer peels off in about four weeks, and the subjacent regenerated epithelium begins to sweat again, the process requires repetition. As a rule, it is best to paint only the soles, as the interdigital folds bear the formalin badly. If they also are the seat of hyperidrosis, they should be treated with tannoform as a dusting power. If the soles also are macerated, they should be treated with tannoform till sufficiently hardened to bear the formalin.

Diabetic Coma.

Dr. JOHN S. ELY (*Yale Medical Journal*) says: "I would warn against too precipitate withdrawal of carbohydrates from patients suffering from diabetes. In a number of cases this has been speedily followed by the development of coma, probably because of the readiness with which proteid food yields acids in the course of its decomposition. To avoid this, the alkaline treatment should be instituted prior to the reduction of carbohydrates, and these should then be gradually withdrawn."

For Painful Dentition.

The following prescription is recommended in the *Gazzetta degli Ospedali* for painful dentition:—

R Citric Acid	each	...	2,350	grains.
Distilled Water		...		
Cocaine Hydrochloride		...	1½	"
Syrup		...	800	"
Tincture of Vanilla		...	11	drops.

M. To be rubbed on the gums.

Sealey's Pile Ointment.**TAKE OF—**

Sulph. morphia	...	...	3	gr.
Tannin	...	...	48	gr.
Pine tar	...	...	72	gr.
White wax	...	...	72	gr.
Benzonated lard	...	...	786	gr.

Mix. —*Secret Nostrums and Systems.*

Thompson's Eye Water.**TAKE OF—**

Zinc sulphate	...	...	20	gr.
Copper sulphate	...	...	5	gr.
Tinct. saffron	...	...	2	dr.
Tinct. camphor	...	...	1	dr.
Rose water	...	...	8	oz.
Dist. water	...	...	8	oz.

Mix and filter. —*New Remedies.*

Hair-Wash.

Az. acetic B.P.	...	...	ʒi.
Fr. canthar.	...	...	ʒi.
Ess. bouquet	...	...	ʒiij.
Glycerine	...	...	ʒiij.
Sacch. sat.	...	...	q.s.
Aque	...	ad	ʒviij.

Filter bright.

Gingerade Powders.

Tartaric acid	...	...	ʒi.
Oil of lemon	...	...	℥x.
Gingeria	...	...	ʒss.
Spirit-colouring	...	...	gr. xx.
Powdered sugar	...	...	1 lb.

Weigh into ounce packets and wrap in parchment paper. The contents of each packet are to be added to a pint of water.

—*Chemist and Druggist.*

For Condylomata.

R Calomel	...	...	30	parts.
Boric acid	...	...	18	"
Salicylic acid	...	...	5	"

S. Apply three times a day.

—*Gazette Hebdomadaire de Médecine et Chirurgie.*

Artificial Vichy Salts.

Sodium bicarbonate	...	...	84.6	"
Potassium carbonate	...	...	38.5	"
Magnesium sulphate (anhyd.)	...	...	35.5	"
Sodium chloride	...	...	77	"

Mix. 14 grs. to 6 ozs. of water.—*Chemist and Druggist.*

Correspondence.**THE CIVIL MEDICAL DEPARTMENT.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—It has been said that when the employés of any great department of the State suffer from a grievance, and when their complaint is a well-founded one, the public press must voice it forth and insist upon the necessary remedy.

Is not then the Civil Medical Department's great State department, and have the Civil Assistant Surgeons no complaints? A letter from "TOMTIT, M.B.," published in the *Indian Medical Record* of the 26th September, puts forth some of these complaints; but it has elicited no response, either from the editor, or the press in general, that I know of. The complaints that are mentioned there have been more or less fully discussed by the writer, and I will not say more than a few words upon these heads. The rule about the promotion examination from the second to the first grade of Assistant Surgeons affects them more seriously than it would appear at first sight. The rule is specially hard, as it benefits nobody, except perhaps the Government.

Under the former regulations every Assistant Surgeon could appear in the examination as a matter of right, if he had completed seven years' service in the second grade. But now he must be recommended. Here creeps in a chance for favouritism. Not to speak of the injured ones, of what avail would favouritism be to the favourite? He must complete his seven years, and then he must pass the usual test examination as under the old régime. He must do all he had to do before and something more.

The working hours of the dispensary are fixed; but there is a "but" in the case. The Assistant Surgeon in charge has to see urgent cases whenever required, whether it be noon or midnight. No medical man will, I hope, complain of this; but often no consideration whatever is made, and ordinary patients and prescriptions come regardless of the specified hours, and the Civil Surgeon usually sees no reason why they should not be attended to just when they come in. What does all this mean? A Civil Assistant Surgeon has to work every day of the year—there is no holiday for him. All his days are Mondays—Sundays have been struck off his diary. Unless he has a strong and reasonable Civil Surgeon, he has to remain chained to the rickety dispensary chair every minute of the 24 hours; and if he leaves it, he does so at the risk of displeasing not only his own immediate superior, but probably the whole staff of civil officers. There is not a single minute of his time which may be called his own. He is a prisoner, though lodged in the asylum for the infirm.

Were all these points taken into consideration when the rules for his pay and other emoluments were framed? Because he is overworked, is he entitled to any advantage as regards his leave? I fear the answer to this cannot be a same rule as simple "No." Previously he was under the regards leave as other civil officers. He had no advantage; but then he had no disadvantages either. But by a recent circular of the Inspector-General of Civil Hospitals, Punjab, the rules have been somewhat modified for medical subordinates. The Civil Surgeons now have not the power, which they formerly had, of granting casual leave to Assistant Surgeons and Hospital Assistants without the previous sanction of the Inspector-General, unless there is another medical man on general duty (which is rarely the case) who can work the dispensary during the days of leave. And then in no case is the leave to extend to more than seven days at a time (the limit was ten days formerly, as for other departments). This circular practically does away with all casual leave for medical subordinates. The arrangement, as laid down in the circular, is out of the question in mofussil towns, and so there would be no casual leave for them. The Civil Assistant Surgeons now only look forward to a supplementary circular to cut short or do away with their privilege leave to complete their discomfiture, as, according to the circular, Government cannot incur any extra expenditure in granting leave.

Now, as the Civil Assistant Surgeons will have no holidays throughout the year, and do not grumble, the India Government, more solicitous of their health than they themselves seem to be, has ruled that in future their grade examinations would only be held once in the year instead of twice, as was formerly the case, and as is probably the case even now in all the other departments. The reason assigned for this departure is that it has been represented that the month of May is hot for these examinations. Does it not show the care of a parent for a silly child? But the same benevolent Government never raised its motherly voice when the examination date of the Lahore Medical College was changed from the month of March to that of the third week of June. Do not medical students feel the heat of June while appearing in their University examinations (which is far more stiff than the departmental examination of the Assistant Surgeons)? To explain this anomaly—the heat theory—I fear, will not do. Now that the examination will only be held in November, those Assistant Surgeons who are unfortunate not to pass it then will have to wait for the cool days of November again and thank the Government. The loss of a few hundreds of rupees which they suffer by this arrangement they can credit to the account of heat. How far these arrangements

shall benefit the Assistant Surgeons is quite apparent. The only outcome of these regulations will be to make the department less attractive. In these days of struggle for existence, there would be no lack of persons to take up the profession, but able men will be attracted to more paying lines, and the Government will obtain a cheap medical department at the expense of efficiency. It is said that though their work is hard and pay inadequate, medical men have the advantage of private practice; but it is merely an illusion. Those who have entered the department know probably too late what private practice means, and what can it bring to the man's pocket. It might be a source of income to a fortunate few; but to the average Assistant Surgeon, posted to a small station, it is almost an unknown luxury. If an Assistant Surgeon comes to compare his own prospects with those of a former friend and class fellow not more hard-working and intelligent than himself, he becomes disheartened. Not to think of the longer technical course of study with all its hardships, he finds himself placed at a great disadvantage. Though he may find that he has a high official status, he knows that he has not the means to maintain it.

Yours, &c.,

CIVIL ASSISTANT SURGEON.

(The complaints were commended for consideration.—ED., I.M.R.)

THE BRUSSELS M. D.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I quite agree with what your correspondent, "NOT A BRUSSELS GRADUATE," has written in your issue of the 9th January regarding the "M. D. of Brussels. I have not seen the letter of "M. D." referred to, and so do not know the nature of the strictures made by him. I have just returned from Europe, and have taken both the "triple qualifications" of Edinburgh and the M. D., Brux., and I have no hesitation whatever in asserting that I found the latter more difficult. It was fortunate that I was well up in all my subjects, having just gone through the L. R. C. P., &c., of Edinburgh, which I passed with great credit. There were five gentlemen, all M. R. C. S., L. R. C. P. of London, who went in for the examination with myself. Of these, three were thrown out in the very first doctorate. The other two just managed to "scrape through," as the school-boy would say. Neither passed *with credit*, though amongst the passed candidates three passed *with great credit*. This should be sufficient to convince people that you must know your subjects, and know them well, if you want to pass, and like all European Universities, if the examiners find that you possess a good knowledge of your subject, they pass you; if not, you get plucked.

Yours, &c.,

M.D.ICO.

A GOOD OR BAD BARGAIN IN A BINAURAL STETHESCOPE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—We beg to advise despatch to your address a Binaural Stethoscope which we are supplying to our customers, and none has complained. You can see yourself whether they are worth the money paid for them. Your correspondent, "A SUFFERER," cannot expect a Binaural Stethoscope like those of ARNOLD's or HICK's of £1 or 15s. for one rupee. The stethoscope sent to your correspondent might have broken in transit, for which he could have it replaced by referring to us. We are very sorry for your "A SUFFERER" for the loss of the sum of one rupee, on account of the carelessness of the post-office or of the packing. We leave our case in your hands, and shall be very thankful to you if you will kindly give your opinion in your valuable paper.

Yours, &c,
B. M. NARAIN & Co.

EGERTON STREET, DELHI;
22nd January 1901.

(We have seen the Stethoscope sent out by this firm, and we are satisfied that the article given is a fair return for the money asked.—ED., I.M.R.)

THREATENED SUIT FOR DAMAGES AGAINST THE EDITOR, INDIAN MEDICAL RECORD.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your attention might have been drawn to a letter which appeared in a recent number of *Civil and Military Gazette* of Lahore, written in a most unbecoming style, frightening you with a suit for damages in the High Court of Calcutta. If Mr. GUNGADIN carries his foolish threat into execution, you will have to go through a harassing and expensive case. You deserve the gratitude of the whole profession for your endeavours to uphold its interest. I doubt not also that both Government and the public will support you. I would ask the President of the Indian Medical Association to start a "Wallace Defence Fund" at once and circulate the list. I appeal to all members of the profession, independent practitioner and service men to subscribe, and thereby practically show their sympathy with a member of their profession who is prosecuted for trying to uphold the cause of their profession in India.

Yours, &c.,
SYMPATHY.

(We have not seen the letter referred to. We are content to wait and watch events. When the event of Gungadin versus the *Indian Medical Record* comes off, we shall be found ready. Meanwhile our brethren may withhold their subscriptions.—ED., I.M.R.)

Government Medical Gazettes.

BENGAL.

Asst. Surgn. Nobin Chunder Dutt is promoted to the Senior grade from the 24th July 1900.

Mily. Asst. Surgn. J. E. L. Chinal is apptd. to act as a Mily. Asst. Surgn. attached to the Presdy Gen. Hosp., Calcutta, during the absence, on deputation, of Mily. Asst. Surgn. P. Victor.

Asst. Surgn. Syed Hassan is apptd. to do supy. duty at the Med. Col. Hosp., Calcutta, from the 12th Nov. 1900.

Asst. Surgn. Harendra Kumar Das of the Cholera Emigration Hosp. at Naibati, is allowed leave for three months, on med. certificate, from the 13th Nov. 1900.

BOMBAY.

The Governor in Council is pleased to appt. Dr. H. W. Beach to be Dist. Med. Offr. under the Famine Relief Code for the Sholapur Dist, vice Dr. H. C. Patric, whose services have been replaced at the disposal of the Gen. Dept. (Plague.)

Dr. C. Christy, Civil Surgn., is apptd. to be a nominated Commr. of the Satara City and Satara Suburban Municipalities, vice Major B. B. Grayfoot, resigned.

Asst. Surgn. Dorabsha Edalji Kothavala, L. M. & S., is allowed privilege leave of absence for two months.

MADRAS.

M. R. Ry. Peter N. Lakshmanan, M.B., C.M., Asst. to Dist. Med. and Sany. Offr., Chingleput, is granted a further extension of six months' leave on forfeiture of pay and allowances.

Lient-Col. James Cort Marsden, I.M.S., to act as Dist. Med. and Sany. Offr. and Supdt. of Jail, Nellore, during the employment of Major F. C. Pereira, I.M.S., on other duty.

Mr. Alfred John Hesterlow to act as Civil Surgn., Chittoor, during the employment of Major C. Adams, I.M.S., on other duty.

CENTRAL PROVINCES.

Civil Hosp. Assts. Balwant Lakshman and S. Venkatesan, on plague duty in the Nagpur City, are directed to do gen. duty under the orders of the Civil Surgn., Nagpur, from the 1st Oct. 1900.

Civil Hosp. Asst. Balwant Lakshman, doing duty under the orders of the Civil Surgn., Nagpur, is temply. posted to the Buti Branch Dispy., Nagpur, during the absence, on privilege leave, of Civil Hosp. Asst. Abdul Majid Khan.

The services of Civil Hosp. Asst. Suresh Chandra Chatterji being no longer required by the P. W. Dept., he is deputed on famine duty in the Civil Dept., in the Raipur Dist.

The services of Civil Hosp. Asst. Rattan Chand being no longer required by the P. W. Dept., he is deputed on famine duty in the Civil Dept., in the Raipur Dist.

The services of Civil Hosp. Asst. Sarat Kumar Mitra being no longer required by the P. W. Dept., he is directed to do gen. duty under the orders of the Civil Surgeon, Nagpur.

The services of Civil Hosp. Asst. Behari Lal Sen being no longer required by the P. W. Dept., he was directed to do gen. duty under the Civil Surgn., Chhindwara, from the 17th Sept. to the 21st Oct. 1900.

Privilege leave for three months is granted to Civil Hosp. Asst. Kabil Ahmed, on famine duty in the Civil Dept. in the Bhandara Dist., from the 10th Nov. 1900.

The services of Civil Hosp. Asst. Muhammed Inamullah being no longer required by the P. W. Dept., is transferred on famine duty under the Civil Dept. in the Sangor Dist.

Privilege leave for three months is granted to Civil Hosp. Asst. Kashi Nath Gopal from the date he is relieved of famine duty in the Civil Dept. in the Nagpur Dist.

Civil Hosp. Asst. Abdullah Bhat, whose services are no longer required for famine duty in the Civil Dept., is directed to do duty under the orders of the Civil Surgn., Nimar.

Civil Hosp. Asst. Surji Rao, on famine duty in the Civil Dept. in the Balaghat Dist., is directed to do duty under the orders of the Civil Surgn., Nagpur.

Civil Hosp. Asst. Ashraf Hussain, whose services were not required by the P. W. Dept., for famine duty, was directed to do duty under the orders of the Civil Med. Offr., Balaghat.

Civil Hosp. Asst. Ashfaq Hussain, on gen. duty at Balaghat, was transfd. in the same capacity to Nagpur.

Civil Hosp. Asst. Krishna Chander Burns, whose services were not required by the P. W. D. for famine duty in the Balaghat Dist., was ordered to do duty under the orders of the Civil Surgn. of Nagpur.

Civil Hosp. Asst. Jotindranath Ghose is directed to do duty under the orders of the Civil Surgn. of Nagpur.

Civil Hosp. Asst. Abdullah Bhai, doing duty under the orders of the Civil Med. Offr., Nimar, is apptd. to the Harsud Branch Dispy. in that dist.

Civil Hosp. Asst. Raghunath Parshad, attached to the Harsud Branch Dispy., is granted three months' privilege leave from the date on which he is relieved of his duties by Civil Hosp. Asst. Abdullah Bhai.

Civil Hosp. Asst. Ramsundar Lal, doing duty under the orders of the Civil Surgn., Nagpur, is apptd. to the Deoli Branch Dispy. in the Wardha Dist.

On being relieved of the ch. of the Deoli Branch Dispy., Civil Hosp. Asst. Wahid-ud-din is apptd. to the Hinganghat Branch Dispy. in the Wardha Dist.

Civil Hosp. Asst. Mohan Lal, attached to the Hinganghat Branch Dispy., is granted furlough for one year from the date he is relieved of his duties by Hosp. Asst. Wahid-ud-din.

The services of the Civil Hosp. Assts. named below being no longer required for famine duty in the Civil Dept., they are directed to do duty under the orders of the Civil Med. Offr., Chanda:—

Vithal Raghoba Lande; Maroti Ramkrishna; Armodaya Phatak.

Civil Hosp. Assts. Maroti Ramkrishna and Vithal Raghoba Lande, on gen. duty at Chanda, are transferred in the same capacity to Nagpur.

Civil Asst. Surgn. Bipin Bihari Gupta, doing duty under the orders of the Civil Surgn., Nagpur, is attached temp. to the Chief Commr.'s Camp.

Privilege leave for three months is granted to Asst. Surgn. Samuel Jay, Najf Kotak, Inspr. Med. Offr., Chanda, from the date on which he may be permitted to avail himself of it.

Privilege leave for three months is granted to Mr. Harnam Das, Asst. Surgn., Bilaspur, from the 1st Dec. 1900, or any subsequent date on which he may avail himself of it.

The services of Civil Hosp. Asst. Radha Kristo Das being no longer required by the P. W. D., he is deputed on famine duty under the Civil Dept. in the Sambalpur Dist.

Civil Hosp. Asst. Radha Kristo Das, on famine duty in the Civil Dept. in the Sambalpur Dist., is directed to do gen. duty under the orders of the Civil Med. Offr. of that dist.

Civil Hosp. Asst. Radha Kristo Das, on gen. duty under the orders of the Civil Med. Offr., Sambalpur, is transferred in the same capacity to Raipur.

The services of Civil Hosp. Assts. Shaikh Amanat Hussain and Anand Ram Nanda being no longer required for famine duty under the Civil Dept. in the Sambalpur Dist., they are directed to do duty under the orders of the Civil Med. Offr., Sambalpur.

Civil Hosp. Assts. Shaikh Amanat Hussain and Anand Ram Nanda, doing duty under the orders of the Civil Med. Offr. Sambalpur, are transferred in the same capacity to Raipur.

Civil Hosp. Asst. Dada Lakshman Silkey, on famine duty in the Civil Dept., in the Raipur Dist., is directed to do duty under the orders of the Civil Surgeon of that dist.

Civil Hosp. Asst. Baliram, whose services were not required for famine duty in the Civil Dept., was directed to do duty under the orders of the Civil Surgn., Nagpur.

Civil Hosp. Asst. Sadashiv Narayan, attached to the Poor-house at Sambalpur, is directed to do duty under the orders of the Civil Med. Offr. of that Dist.

One month's leave on med. certificate is granted to Civil Hosp. Asst. Kahirode Kumar Ghose, in extension of that granted him in Dept. Order dated the 10th Oct. 1900.

Civil Hosp. Asst. Ramkrishna Appaji, attached to the Murwara Branch Dispy., Jabulpore, is granted three months' privilege leave from the date on which he is permitted to avail himself of it.

Civil Hosp. Asst. Beni Parshad, attached to the Sehora Branch Dispy., Jabulpore, is apptd. to the Murwara Branch Dispy. during the absence on leave of Ramkrishna Appaji.

Civil Hosp. Asst. Ramkrishna Palkaji, doing duty under the orders of the Civil Surgn., Hoshangabad, is temp. apptd. to the Sehora Branch Dispy., Jabulpore, vice Beni Parshad, transferred to Murwara.

Civil Hosp. Asst. Ramsunder Lal, doing duty under the orders of the Civil Surgn., Nagpur, is apptd. to the Jail Hosp., Chanda.

On being relieved of the ch. of the Jail Hosp., Chanda, Civil Hosp. Asst. Inam Khan is apptd. to the Hinganghat Branch Dispy. in the Wardha Dist.

Civil Hosp. Asst. Abdul Khaliq was directed to do duty under the orders of the Civil Med. Offr., Balaghat, from the 17th Oct. to the 6th Nov. 1900.

The services of Capt. P. F. Chapman, M.B., B.S. (Bengal), are placed permanently at the disposal of the Honourable the Chief Commr. of the C. P., from the 15th June 1899.

The services of Civil Hosp. Asst. Keshoo Raghunath Das being no longer required for famine duty in the Saugor Dist. under the Civil Dept., he is transferred to Nagpur for gen. duty under the Civil Surgn. of the latter dist.

The services of Civil Hosp. Asst. Muhammad Inamulla being no longer required for famine duty under the Civil Dept., in the Saugor Dist., he is directed to do gen. duty under the orders of the Civil Surgn. of that dist.

Civil Hosp. Asst. Mohendra Nath Mukerjee, doing duty under the orders of the Civil Surgn., Betul, is transferred in the same capacity to Hoshangabad.

The services of Civil Hosp. Asst. Nilkant Narayan being no longer required by the P. W. D. for famine duty, he is re-apptd. to the Police Hosp., Raipur.

Civil Hosp. Asst. Nilkant Narayan, attached to the Police Hosp., Raipur, is directed to hold ch. of the Poor-house at that stn. in addition to his own duties.

The services of Civil Hosp. Asst. Sadashoo Narayan being no longer required for famine duty in the Civil Dept. in the Sambalpur Dist., he is directed to do gen. duty under the orders of the Civil Med. Offr. of that dist.

Civil Hosp. Asst. Sadashoo Narayan, doing duty under the orders of the Civil Med. Offr., Sambalpur, is directed to hold ch. of the Poor-house in that town.

Major H. E. Banatwala, I. M. S., Civil Surgn., has been granted by Her Majesty's Secretary of State for India furlough on med. certificate for two months.

Civil Asst. Surgn. Krishnaji Kashinath Gokhle, doing duty under the orders of the Civil Surgn., Nagpur, is apptd. temp. to the Civil Med. Ch. of the Chanda Dist., vice Mr. G. E. Anderson, whose services are no longer required in these provinces.

Civil Asst. Surgn. Krishnaji Kashinath Gokhle, in Civil Med. Ch. of the Chanda Dist., to the executive and med. ch. of the Chanda Jail.

Civil Hosp. Asst. Hashmat Ali was on gen. duty at Balaghat from the 22nd Oct. to the 9th Nov. 1900.

N.-W. P. & OUDH.

Civil Asst. Surgn. Har Parshad, attached to Sadr Dispy., Fyzabad, privilege leave for one month and 22 days from 19th Jan. 1901, or any subsequent date.

Civil Asst. Surgn. S. M. Abdul Rahman, attached to Chakrata Dispy., privilege leave for one month from 10th Jan. 1901, or any subsequent date.

Civil Asst. Surgn. Rama Prasad Bagchi, M.D., Lecturer on Med. Jurisprudence and Morbid Anatomy, Agra Med. School, privilege leave for 45 days from the 26th Jan. 1901.

Civil Asst. Surgn. Chandra Mohan De, Asst. Health Offr., Agra, privilege leave for one month from the 6th Dec. 1900.

Temp. Civil Asst. Surgn. Kashi Nath, on reserve duty at Lucknow, to Allahabad for duty in the Magh Mela Hosp.

Civil Asst. Surgn. Baij Nath Vias, on being relieved of the off. ch. of the Fatehpur Sadr Dispy., to reserve duty at Lucknow.

Civil Asst. Surgn. Baij Nath Vias, on reserve duty at Lucknow, to the ch. of the Sadr Dispy., Fyzabad, as a temp. measure, vice Asst. Surgn. Har Parshad.

Civil Asst. Surgn. E. H. Thomas, M.B., on being relieved of the off. ch. of the Thomson Hoop, and Leckner on Materia Medica, Med. School, Agra, to officiate as Lecturer on Med. Jurisprudence and Morbid Anatomy, Med. School, Agra, during the absence on privilege leave of Civil Asst. Surgn. Rama Prasad Begshi, M.D.

Hosp. Asst. Joti Parbhad, in ch. of the Awarah Branch Disp., in the Etah dist., is temp. deputed to the ch. of the Sadr Disp., Etah, from the 22nd Dec. 1900.

Civil Asst. Surgn. Chandra Mohan De, on return from leave, to Lalitpur Disp. in the Jhaasi dist.

Civil Asst. Surgn. Gura Prasanna Raha, in ch. of Sadr Disp., Etah, is apptd. as Asst. Health Offr. in connection with plague at Agra, from the 22nd Dec. 1900, as a temp. measure.

Civil Asst. Surgn. Ghulam Mustafa, from the ch. of the Sadr Disp., Muzaffarnagar, to plague duty in connection with Hadjra Camp at Allahabad, as a temp. measure.

Civil Asst. Surgn. Chaman Singh, attached to Lalitpur Disp. in the Jhaasi dist., to plague duty at Allahabad, in connection with Magh Mele.

Temp. Civil Asst. Surgn. Sarat Chandra Chakravarti, on reserve duty at Meerut, to the ch. of the Sadr Disp., Muzaffarnagar, as a temp. measure.

Hosp. Asst. Nihal-ud-din, attached to the Jail and Police Hosps., Muzaffarnagar, held ch. of the Sadr Disp. there, in addn. to his own duties, from the 22nd to 31st Dec. 1900.

Civil Asst. Surgn. Gobind Chandra Banerji, attached to the Sadr Disp., Unao, held civil med. ch. of that dist., in addn. to his other duties, from the 16th Nov. to the 16th Dec. 1900.

Mil. Asst. Surgn. W. Heatboock, in civil med. ch. of Unao, was on leave on med. certificate, from the 16th Nov. to the 16th Dec. 1900.

With effect from the 16th July 1900, *vice* Lieut.-Col. E. Mair, transferred to Bengal, Major W. H. Gray, I.M.S., Offg. Supdt., Central Prison, Benares, to be confirmed in that appt.

Major J. J. Pratt, I.M.S., Civil Surgn., from the med. ch. of the Camp of His Honor the Lieut.-Govr. and Chief Commr. to the Naini Tal Dist., from the 8th Jan. 1901.

Mil. Asst. Surgn. L. J. O'Reilly, on plague insp. duty at Dehra Dun, to hold ch. of the civil med. duties of the Bulandshahr dist. as a temp. measure.

Capt. Gordon Travers Birdwood, M.D., I.M.S., Med. Offr., is transferred to the supy. list from the 1st Dec. 1900.

Major William George Patrick Alpin, M.D., I.M.S., supy. list, is retransferred to the active list from the 1st Dec. 1900.

PUNJAB.

Hosp. Asst. Badha Kieban, while employed on plague duty, Jullundur Dist., was granted leave on med. certificate from the 8th May 1900. On the termination of this leave he was placed on gen. duty at the Jullundur Civil Hosp. on the 22nd Nov. 1900.

Muhammad Ismail is admitted into the service as a temp. Hosp. Asst. for employment on plague duty in the Jullundur and Hoshiarpur Dist. from the 16th Dec. 1900.

Hosp. Asst. Ram Chand, doing itinerating duty in the Hissar Dist., was apptd. to the ch. of the Bahadurgarh Disp., Rohtak Dist., on the 5th Dec. 1900.

Hosp. Asst. Ali Ahmad, doing gen. duty at Jullundur, was transferred for gen. duty to the Jalaipur Disp., Gujrat Dist., on the 11th Dec. 1900.

Asst. Surgn. Umrao Raja Lal reported himself to the Civil Surgeon, Karnal, for gen. duty on the 18th Dec. 1900.

On being relieved of his duties on the Upper Sutlej Inundation Canals, Hosp. Asst. Khuda Baksh was granted privilege leave for 3 months and 17 days from 1st Oct. 1900.

Hosp. Asst. Khuda Baksh was apptd. to the subordinate ch. of the Civil and Police Hosps., Jullundur, from the 17th Dec. 1900.

On transfer from Lahore, Hosp. Asst. Kale Khan was apptd. to the ch. of the Jail and Police Hosps., Hoshiarpur, on the 4th Dec. 1900, relieving Hosp. Asst. Ram Rattan.

Hosp. Asst. Isbar Das, Rajipur Disp., Hoshiarpur Dist., was granted leave on med. certificate for one month, and was relieved of his duties on the 6th Dec. 1900, by Hosp. Asst. Ram Rattan, transferred from Hoshiarpur.

On being relieved of the ch. of the N.W. By. Hoop, Umballa Cantonment, Hosp. Asst. Harman Singh was apptd. to the Kotgarh Disp., Simla, Dist., on the 4th Dec. 1900.

Hosp. Asst. Abdul Rahim, Amritsar Police Hoop, held ch. of the Jail and Lock-up Hosps., Amritsar, from the 1st to the 5th Oct. 1900, in addition to his own duties, during the absence of Hosp. Asst. Abdulla Khan, on privilege leave.

Hosp. Asst. Fakir Chand, doing gen. duty at Rawalpindi, was transferred to Gujrat for gen. duty on the 25th Oct. 1900.

Hosp. Asst. Dasaundhi Khan, Jhetum Canal Disp., Rawul, has obtained three months' privilege leave, and was relieved of his duties on the 26th Nov. 1900 by Hosp. Asst. Fakir Chand, transferred from Gujrat.

Hosp. Asst. Jaggan Nath, doing gen. duty at Lahore, was apptd. to the Buchiana Disp., Chenab Canal, Upper Gugera Divn., on the 2nd Dec. 1900, relieving Hosp. Asst. Akbar Khan.

On being relieved of his duties on the Chenab Canal, Upper Gugera Divn., Hosp. Asst. Akbar Khan was apptd. to the Central Jail Hoop, Montgomery, on the 9th Dec. 1900, relieving Hosp. Asst. Karm Chand, who was placed on gen. duty at Montgomery from the 10th Dec. 1900.

Lala Debi Chand is admitted into the service as a temp. Hosp. Asst. for employment on plague duty in the Jullundur Dist. from the 21st Dec. 1900.

The six weeks' leave on med. certificate granted to Asst. Surgn. A. Williams in *Punjab Gazette*, dated 9th Oct. 1900, has been extended by two months by Her Majesty's Secretary of State for India.

The services of Hosp. Asst. Farozedin being no longer required for itinerating duty in the Hissar Dist., he was placed on gen. duty at Hissar on the 1st Jan. 1901.

Hosp. Asst. Abdul Hal, Khangarh Disp., Muzaffargarh Dist., has obtained three months' privilege leave, and was relieved of his duties on the 22nd Dec. 1900 by Hosp. Asst. Lachman Das, transferred from Muzaffargarh.

Hosp. Asst. Gandu Ram, doing gen. duty in the Gurdaspur Dist., was transferred to the Civil Hoop, Amritsar, for gen. duty on the 29th Dec. 1900.

Hosp. Asst. Abbas Ali, doing gen. duty at Karnal, was apptd. to the ch. of the Arnauli Disp., in the same dist., on the 23rd Dec. 1900, relieving Hosp. Asst. Abdulla Khan, who was placed on gen. duty at Karnal from the 29th Dec. 1900.

Hosp. Asst. Sat Ram resumed ch. of the N.W. By Disp., Saharanpore, on the 20th Dec. 1900, relieving Hosp. Asst. Khuda Baksh.

Hosp. Asst. Hussain Shah resumed ch. of the Talamba Disp., Mooltan Dist., on the 1st Jan. 1901, relieving Hosp. Asst. Gela Ram.

On being relieved of the ch. of the Karnal Sadr Disp., Asst. Surgn. Ghulam Muhammad was apptd. to do special plague duty in the Jullundur and Hoshiarpur Dist. from the 29th Dec. 1900.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTHS.

BORAH.—At Silohar, on Friday, the 11th of January 1901, at 10-15 P.M., the wife of Lieut.-Col. S. Borah, I. M. S., of a son.

DEATHS.

JOHNSTON.—At Loralai, Beluchistan, on the morning of the 9th January, murdered in the bazaar by a fanatic, Captain Dudley Oates Johnston, I.M.S., 24th Beluchistan Regiment, aged 30 years.

O'CONNOR.—On the 9th January 1901, at Allahabad, N.W. P., of heart failure, Georgiana, the dearly loved wife of Surgeon-Major J. O'Connell (retired), aged 54 years, 4 months and 21 days.

ORIGINAL ARTICLES.

MANAGEMENT OF DIFFICULT BREECH LABORS.*

By ADAM H. WRIGHT, B.A., M.D.,

Professor of Obstetrics, University of Toronto.

THE dangers to the child in breech labors are fairly well known, but not always duly appreciated. In the most skilled hands probably 10 per cent. of the children are still-born; in some charities, we are told by HERMAN, 30 per cent. perish during delivery. In other words, the excess in the mortality rate depending on want of skill in management sometimes amounts to 20 per cent. This is certainly a very serious matter, and is far from creditable to our modern school of obstetricians. My own experience and observation lead me to believe that many physicians neglect to use proper and systematic methods in the management of these cases. Fortunately, it happens that it is not difficult to acquire a reasonable amount of skill if we adopt certain rules in assisting delivery in breech cases. I have not time, nor any desire, to refer to all the methods which have been described by distinguished obstetricians in various parts of the world, but will endeavour to outline a definite plan of action, having reference especially to the safety of the child, and for the sake of brevity will speak in rather a dogmatic way. It is generally better to explain to the friends the nature of the case and the extra risk to the child.

Position of the Patient.—Place her on her back across the bed with buttocks at the edge of the bed, in the lithotomy or WALCHER'S position. As a general rule, I greatly prefer the dorsal position for obstetrical operations, such as forceps delivery, version, etc.; but especially do I like it in breech labors. I think it equally important that the patient should be placed across the bed, and I thoroughly endorse DURHSSEN'S remark that "in this way alone can proper assistance be rendered." Do this in multipara when the breech enters the vagina, in primipara when it is on the point of delivery (DURHSSEN).

Preparation of Physician.—Make bare both arms up to shoulders, or as nearly so as possible, and cleanse hands and arms thoroughly. The accoucheur should be prepared to pass either hand into the vagina or uterus as speedily as possible. A 1 per cent. solution of lysol is probably the best for rinsing purposes during the manipulations.

Management of Delivery.—Avoid traction on the child, if possible, because it generally causes extension of arms over the head, and frequently extension of the head itself. Before the expulsion of the breech, instruct the nurse how to press on the fundus uteri, when required, to assist in expelling the thorax and shoulders, and how to press on the head after the shoulders are born. After the delivery of the breech give the signal for patient to bear down and nurse to press on fundus. When breech does not descend into pelvis within an hour or two after the os is fully dilated, traction becomes necessary.

Bring Down a Leg.—Better to have patient anaesthetized before all the liquor amnii has escaped. Pass up the hand with its palm towards the child's abdomen. Support the uterus with other hand over fundus externally. Seize

the anterior foot if possible. "By it we can more easily pull the child downward and backward through the superior strait." When legs are extended on thighs, so that feet are close to head, pass the hand to the fundus. When you reach the knee, press it outward, then push the hand further, and seize the instep of foot, and carry it to the other side and bring it down.

When interference becomes necessary after the breech has descended into pelvis, it is better even then to pass up the hand and bring down a foot; but full anaesthesia is desirable, and great gentleness and caution are necessary.

With reference to other methods, I have but little to say. Digital traction with index finger hooked into groin, or traction with the soft fillet is sometimes sufficient, and either is quite satisfactory. The blunt hook is dangerous. The forceps is also dangerous and generally useless. When the child is born as far as umbilicus, pass the finger into the vagina and pull down a loop of cord, but do not waste any time in trying to guide the cord to any particular part of the pelvis, as is generally recommended.

Place a piece of flannel or small blanket or diaper (sterilized) round the exposed part of the child to prevent respiratory efforts which may be induced by contact with the cold air.

Liberations of Arms.—The arms are nearly always dragged over the head when traction has been employed.

When the shoulders appear at vulva, pass two fingers along the most easily accessible arm to the bend of the elbow, push it backward and bring it across the face to the vulva, first the elbow, then the arm, then the hand. Bring other arm down similarly. Be careful not to press on humerus for fear of causing fracture.

When the shoulders are arrested at the superior strait, an entirely different method is advisable.

Press the body of the child slightly upward and rotate sufficiently to bring the back to one or the other side of mother's pelvis; then elevate the hips toward mother's abdomen, using moderate traction, and try to liberate the posterior arm. Use the hand that naturally faces abdomen of child and introduce until two fingers reach elbow. Draw arm across the child's face and then downward. Then bring hips downward and make traction on thighs, as there may now be room for the head and remaining arm to emerge. If not, push child backward into pelvis and rotate the body, so that the arm that was anterior becomes posterior. During this rotation the back of the child should sweep across the front of the mother's pelvis. Bring down the second arm as before with the other hand.

During rotation be careful not to dislocate the atlas upon the axis if child be alive; but if the thorax has been pushed upward in such a way as to free the head from the superior strait, this danger is avoided.

Neckal or Dorsal Displacement of Arm.—Very rarely the arm is extended by the side of the head, and is bent at elbow, so that the forearm lies behind the neck.

Treatment.—Place child's body downward and pass fingers along the back behind symphysis, seize the elbow, and then sweep the arm outward and over fetal face. Or

* Read at the Meeting of the Ontario Medical Association, June 1899.

rotate the fetal body in a direction opposite to that which produced the displacement. It may sometimes be necessary to fracture the arm.

Delivery of the Aftercoming Head.—In no case should the head be allowed to remain in the vagina after the delivery of the shoulders one moment longer than actually necessary. The uterine contractions have now little or no expelling force, while pressure on the cord and premature attempts at respiration at this stage are especially dangerous to the child. I employ the following methods in the order named:—

1. *The Prague Method.*—Grasp the ankles with the right hand and place the left hand over the shoulders with the thumb and index finger on one side of the neck and three fingers on the other side. Pull downward and backward until head has entered the pelvis and then upward and forward, bringing the back of the child nearer to the mother's abdomen, as the face, chin first, slips over the perineum. I use the terms right and left hand for the sake of convenience. The choice of hand for each portion of the manipulation may be left to the operator. In this method the force is expended on the child's neck, and if too great, might cause dislocation or even decapitation.

In the majority of cases delivery is accomplished simply and quickly by this method, but in difficult cases, where much force is required, I adopt the VEIT-SMELLIE method. I may add that British obstetricians, as a rule, consider that the Prague method should be employed only when the head is in the pelvis.

2. *The Veit-Smellie Method.*—Leave the left hand in its position over the nape of neck. Place the right arm so that the abdomen of the child lies upon it straddle-wise. Introduce fingers with hand, if necessary, into vagina and one or two fingers into the mouth, and pull downward on the jaw to flex head, if possible, and then apply traction to both jaw and shoulder. MATTHEWS DUNCAN demonstrated that fifty-six pounds might be applied in some cases by dragging the lower jaw without appreciably injuring the parts. Let your assistant or nurse take the legs of child in one hand and hold child as far forward as you consider necessary, while she still presses over fundus with the other hand.

3. *Modified Veit-Smellie Method.*—SMELLIE first pulled on the lower jaw as described in No. 2, but when he was afraid of overstraining it, he modified the method as follows: Remove fingers of right hand from mouth, and apply them over the superior maxillary bones on either side of nose. Pull face downward, while fingers of left hand push occiput toward the hollow of sacrum. Then employ traction. If you find that you have flexed the head to any extent, place the hands as in second method and pull. The chief advantage connected with this method is the production of flexion which was formerly insufficient to allow easy delivery. It is not likely that jaw traction does much in the way of aiding flexion, but it certainly tends to prevent extension, as HERMAN expresses it. When we pull, the pressure of the brim presses the parietal bones together, and thus makes the vertex more pointed, while it lessens the transverse diameter.

Pressure from above may prevent this moulding of head, and in some cases it is better to remove this pressure after it has been applied for some time.

4. *Application of Forceps.*—When other means have failed, we may extract with forceps. Formerly this instrument was employed more frequently than now. The SMELLIE method is simpler and occupies much less time than the application of the forceps, while the power which may be used in the jaw and shoulder traction is, as a rule, quite as great as that which can be obtained with the forceps. This has been the experience during late years at the Rotunda in Dublin. However, it is well to have the forceps disinfected and at hand in all cases of breech labors, so that it may be used if necessary. The axis traction is best. The blades should be introduced and the handles locked under the body of the child, which should be held forward by an assistant, and traction should be applied on the axis of the pelvis.

5. *Perforation.*—If forceps traction, employed for a reasonable time, fails and the child is dead, consider the further possibility of damage to the soft parts of the mother, and use the perforator. This is seldom necessary unless there be some deformity of the head, especially hydrocephalus.

ORAL SEPSIS AS A CAUSE OF DISEASE.

BY WILLIAM HUNTER, M.D., F.R.C.P.

SEPSIS may arise from diseased conditions of the mouth in connection with a number of general infective processes. This condition, though frequent, is apt to be overlooked.

Case I.—A woman had suffered for ten months from gastric pain, sickness, and nausea. She was cachectic in appearance, and the symptoms were attributed to cancer, though no growth was detected. The pain was at times very severe, and the sickness usually occurred in the morning and had no relation to food. She had lost her sense of taste and had a constant bad taste in the mouth. Her teeth were absent with the exception of four stumps, from the sockets of three of which pus oozed on pressure, but her tooth-plates were clean and in good condition. The symptoms being attributed to the continual swallowing of pus, the teeth were extracted, and immediate improvement took place, but was not maintained. A severe attack of pain and vomiting occurred, and lasted about three weeks, at the end of which time a specimen of the vomited matter was found to contain blood, fibrin, leucocytes, and gastric cells with masses of pyogenic organisms—streptococci and staphylococci. The patient was now confined to bed and fed entirely on peptonised gruel, beginning with 1½ pints daily. Counter-irritation was applied to the stomach and sedatives were administered, while with the view of combating the septic condition, 3 grs. of salicylic acid were given thrice daily and continued from two to three months. Improvement was immediate and continuous. Sickness and pain were checked in 24 hours. The pulse rate and temperature fell, and in ten days she was able to go out and began to gain in weight.

The power of the stomach to destroy organisms depends on the presence of free hydrochloric acid. If there is an increased supply of organisms with diminished secretion of acid, as in gastric catarrh, septic infection of the stomach is readily set up. This is especially apt to occur from dental decay, and such patients present an ashy grey look and an air of languor often associated with distaste for food and periodic nausea. The following cases illustrate the frequency of this condition and the ease with which it may be overlooked even while the patient is being treated for the local effects.

Case II.—A woman had suffered from periodic attacks of fever and rashes which had come on at irregular intervals for two or three years. She had also marked nervous disturbances. There was a typical blotchy septic rash over the legs, arms, and body. About a month previously her dentist had removed a tooth-plate which had partly grown into her upper jaw, and which she had worn for several years.

Case III.—An old man complained of sickness, nausea, disturbance of digestion, and a foul taste in his mouth, which symptoms had lasted for 12 months. His tongue was red, and looked like a piece of raw meat, and the gums in both jaws were red and inflamed. He wore two tooth-plates. The lower was removed with difficulty, as it had not been taken out for a month. Around and beneath this plate much decomposing material had collected. The lower jaw contained three blackened teeth, of which one was loose, and four decayed stumps, one of which was also loose. He was put upon milk diet, directed to boil the plates, and go to the dentist, who reported he saw nothing requiring treatment. A week later he was able to enjoy a cutlet, and the tongue and gums were cleaner, though there was still some stomatitis. He was directed to disinfect his mouth night and morning, to use an astringent wash, and to see another dentist.

Case IV.—A woman had suffered for 15 to 20 years from intense salivation at intervals of five or six weeks, which passed off after an attack of diarrhoea. She had severe stomatitis all over her mouth, and pustules in connection with carious stumps. She wore two tooth-plates which she said were ill-fitting and caused discomfort. These plates had been unchanged for 15 to 20 years, and during that time had only been cleansed with a tooth-brush.

Case V.—A woman suffered from profound septic poisoning. The mouth was in a state of extreme ulcerative almost gangrenous stomatitis. Her temperature ranged from 105° to 106°. She had been in this condition for seven to ten days. She had had a tooth removed and the root remained. There were an abscess of the jaw and a sinus with pus lying around it on the gum. The hard palate was sloughing. The parts were scrubbed with 1 in 20 carbolic lotion, and in 48 hours the mouth looked almost normal, although the patient was almost moribund with septic pneumonia.

Case VI.—A youth suffered from inflammation of the gums after extraction of a tooth. Stomatitis set in and spread till the teeth became loose. Half the lower jaw became completely necrosed, and there was a foul gangrenous condition of the whole superior maxilla, which produced acute septicæmia, hæmorrhagic nephritis, and death.

Case VII.—A patient, who died of pernicious anemia, presented no dental history during life. *Post-mortem*: the teeth were found to be decayed in their sockets with alveolar abscesses connected with them. There was suppuration of the ethmoidal sinus on the left side.

Oral sepsis is apt to occur after the capping of carious teeth, or when the gold capping is extended as a bridge between two teeth over the adjacent gum.

Case VIII.—A patient complained of salivation due to a bridge of this kind which produced local stomatitis. On the removal of the bridge the space beneath was found to be filled with septic material, on removal of which the salivation ceased. He had a gold cap which was removed at the same time as the bridge, and replaced by another. Some weeks later salivation recurred with gingivitis round the capped tooth. On removal of the cap it was found that it covered a minute carious cavity in the neck of the tooth close to the edge of the gum.

It is important to remember that the gastritis in these cases is not due to dyspeptic trouble, but to sepsis caused by the carious teeth. Besides gastritis, local effects, such as tonsillitis, pharyngitis, otitis, abscesses, and glandular swellings in the neck, may occur in connection with diseased teeth. More remote effects are ulcerative endocarditis, meningitis, septicæmia with purpuric hæmorrhages, pyæmia, and osteomyelitis. These should be guarded against by oral antisepsis. A solution of 1 in 20 or 1 in 40 carbolic acid should be applied over each diseased tooth or stump as long as the patient delays having the tooth removed. A teaspoonful of the 1 in 20 solution to half a tumblerful of water may be used as a mouth-wash. All diseased stumps, especially when lying under a tooth-plate, should be removed. Patients should be directed to disinfect their plates by boiling. Dental apparatus which cannot be removed, and therefore cannot be rendered aseptic, should be avoided, and dentists should be warned of the risks of a septic condition of the mouth.

OPERATIVE TREATMENT OF UGLY EARS.*

BY JOHN B. ROBERTS, M.D.,

Professor of Surgery in the Philadelphia Polyclinic.

EVEN within what may be termed physiological limits, great variation exists in the size and contour of the external ear. Disfigurement occurs, however, when there is a disparity in the size of the two organs, when any other condition of asymmetry is present, or when a marked variation from the usual size, position or contour exists in one or both auricles.

This short paper is presented to the Society to direct the attention of its members to the great improvement possible in many auricular deformities. A recent French author has intimated that all medical men should be cognizant of the possibilities of modern aseptic surgery, because, even if unprepared or unwilling to undertake certain operative procedures himself, every practitioner should be at least familiar with the fact that in given conditions operative relief is possible and perhaps imperative. This same line of argument holds good in the case

* Read by title before the Medical Society of the State of Pennsylvania, Wilkes-Barre, and sent to the Record for publication.

of unsightly conditions of the ear. Many persons care little for personal appearance, and are not affected by the existence of a deformity which would make another individual morbidly sensitive and very unhappy. It seems well, therefore, for all surgeons to study with some degree of earnestness the correction of auricular defects. The subject is perhaps the more worthy of attention, as no operative treatment for the correction of these conditions is free from risk, and usually unaccompanied by confinement to bed or even absence from business pursuits.

A lacerated or incised ear should be subjected to thorough sterilization and careful suturing, so that the irregular surface may match that of its fellow. Fine silk is probably the best suture material. Wisdom in directing the course of the needle through the tissues will enable the surgeon to preserve the shape of the organ and to make a very good ear, even after considerable loss of structure.

After the removal of tumours or the occurrence of sloughing from burns, frost-bite or injury, much artistic skill is occasionally demanded in order to restore the symmetry of the two ears. It may at times be necessary to alter the shape or size of the uninjured ear, to obtain a proper correspondence with the one which has been subjected to a traumatic change. If material is needed to take the place of lost tissue, it is to be transferred from the neck or cheek, or transplanted from the hand, abdominal wall or thigh. A portion of a finger or a flap from the palm of the hand may be utilized; or a thick flap from the front of the abdomen or the thigh may be first grafted upon the hand and two or three weeks later fixed to the stump of the ear. Such a mass of muscle, fascia and skin is then modeled into proper shape by a series of minor operations. The deformity due to tearing out earrings, or to the simple piercing of the lobule for these ornaments, requires excision of the cicatrized margins of the fissure or orifice and neat suturing. The proceeding is practically the same as that to be adopted if a native of Africa or the South Seas desired relief from the disfigurement left after discarding the customary nose-ring or lip-plate.

Some deformities or distortions may be corrected by orthopaedic means, such as pads or springs, or by repeated applications of collodion. Artificial ears have been constructed of metal and other materials, and it has been suggested to imbed plates of platinum within the tissues to give rigidity to flaccid parts.

Congenital nodules in the region of the ear, sometimes called supernumerary auricles, are to be excised; unless they can be used to advantage in correcting the shape of the true auricle, in case it be misshapen. Fistulae in the same region are to be closed by dissecting out the tubular tract and neatly closing the resultant wound.

Very large ears may be successfully reduced by excising a wedge-shaped piece, or by removing a crescentic piece from the central portion of the auricle and a horizontal strip outward from the centre of the convex margin of the crescent. It is not rare for the auricles to seem exceedingly large, when the real cause of the uncomeliness is the manner in which they stand out from the side of the head. Flaring ears seem elephantine when not much above normal size. The two conditions may co-exist, the deformity then becomes very conspicuous.

Flaring ears are corrected by excising a vertical ellipse of skin and fascia from the posterior surface of the auricle and the adjacent portion of the skull, and then cutting a vertical wedge-like strip from the exposed cartilaginous structure of the organ. Sutures are then employed to sew the auricle close to the skull. Bandages or spring pads are to be used until the union is sufficiently firm to prevent tearing of the scar tissue by unexpected movements during sleep. If a condition of gigantism co-exists with the flaring, the operation for reduction of the size of the auricle may be done at the same time. A similar method is to be employed in lop ears, in which the auricle droops forward, because of imperfect development of cartilage. The displaced organ should be sewed to the scalp in such a way as to neutralize the tendency to droop. It might be possible to stiffen the auricle by inserting a thin sheet of metal in the tissues. Perhaps such an implanted metallic strip could be bent, after it had become encysted, to resemble more closely the ridges and hollows.

Absent ears, from a want of development during intra-uterine life or from accident, may be represented by celluloid, *papier-maché* or platinum constructions, properly tinted. Instead of these appliances, repeated plastic operations may be successful in making a rudimentary representation of the normal ear.

NOTE ON THE VALUE OF INOCULATION AGAINST ENTERIC FEVER.

BY COLONEL HENRY CAYLEY, F.R.C.S., I. M. S.,

*Late Officer in Charge of the Scottish National Red Cross
Hospital, South Africa.*

THE question of the value of antityphoid inoculation in producing immunity against enteric fever has attracted much attention, and its importance, especially in the case of soldiers, can hardly be over-estimated. The statistics of the army in South Africa will no doubt in due course be published, and must have great value; but, as everyone serving out there knows, the returns of patients treated in the hospital there are open to so many sources of error that any conclusions drawn from them will be very unreliable. On these points I will not now enter; but I think that the results of the inoculations of members of the staff and establishment of the Scottish National Red Cross Hospital serving in South Africa are of interest sufficient to warrant their publication.

The first section of the hospital, consisting of 61 persons—officers, nursing sisters, and establishment—left Southampton on April 21st, 1900, by steamer *Tanjore* for South Africa. During the voyage out all, except four of the 61 personnel of the hospital, were inoculated twice at an interval of about ten days. The inoculations were performed by the ship's surgeon, Dr. WORTABET, who performed the operation with the greatest care, and measured the dose of the virus for each case with exactness. The injections were all made in the flank, and were all followed in from two to eight or ten hours by marked symptoms, both local and constitutional, lasting from two to four or five days.

In many cases the symptoms were just as severe after the second as after the first inoculation. This would seem to show that it takes more than ten days before any immunity is established. Two of the seven nurses were not inoculated, because they had both suffered from enteric fever, and two of the orderlies were only inoculated once.

The material for inoculation I had received from Professor WRIGHT, at Netley, a few days before we embarked, and it was quite fresh. I may add that, out of about 300 troops on board, chiefly volunteers and militia, nearly 100 were persuaded to be inoculated.

Immediately we reached the Cape the hospital was sent up to Kroonstadt, in the Orange River Colony, and remained there as a stationary hospital till the middle of October. During this period there were always many cases of enteric under treatment in the hospital. Further, some of the medical officers and student orderlies had charge of the Kroonstadt Hotel temporary hospital, which was crowded up with enteric cases, and the nursing sisters for three weeks did duty in the military hospitals at Bloemfontein in May and June, when enteric fever was at its worst. There was not a single case of enteric among the *personnel* of this first section of the hospital.

The second section of the hospital, medical officers, nurses, and establishment—82 in all—left Southampton in May 1900. On board ship nearly all were inoculated, but many of them only once. The material for inoculation had been on board for some time, and was not so fresh as in the first instance. Of this second section, one nurse had enteric at Kroonstadt. She was the only one, out of a total of 36 nurses, who suffered from enteric, and she was the only nurse who was not inoculated, excepting the two who were protected by a previous attack of enteric. A third section of the hospital, consisting of four medical officers and 16 nurses, went out in July; they were all inoculated, and none of them had enteric.

Of the second section five orderlies had enteric fever at Kroonstadt, of whom two died. Of these five, there were two inoculated (ones) and three non-inoculated. Of the two who died, one had been once inoculated, the other had not been inoculated.

At the end of August Dr. DODGSON, who was deputed by the Director-General of the Army Medical Department to examine the results of the antityphoid inoculations, came to Kroonstadt, and was good enough to examine the blood of a number of the staff and establishment by WIDAL's test.

Of the first section who had been inoculated four months previously, he tested the blood of 23. Of these, 21 gave good reaction with dilutions ranging from 1 in 40 to 1 in 500; two gave only slight reaction—these were the two orderlies who had only been once inoculated.

Of the second section of the hospital who had been inoculated only three months previously, the blood of 22 was tested. Of these 11 gave no reaction, nine gave very slight reaction, and only two gave good reaction.

It would appear from the above that the members of the first section were much more fully protected against enteric than those of the second section. None of the

first section got enteric, though very much exposed to its influences; also the blood of all those examined showed good reaction to WIDAL's test. Among the second section there were five cases of enteric, of whom three had not been inoculated, and the other two had been only once inoculated; also the blood of 22 tested gave very slight or no reaction to WIDAL's test. It is not quite clear why the inoculations were so much more effective in the first than in the second section. Probably the freshness of the material had an influence; also I think that with the first section the dose for each individual was more exactly measured. As far as I could learn, the members of the first section suffered at the time more severely from both local and constitutional disturbances than those of the second.

The results above given are, I think, very strong evidence in favour of the protective power of the antityphoid inoculation, when the inoculations are very carefully performed, and they point to the necessity for two inoculations at a suitable interval.

During the period of five months that the hospital was stationed at Kroonstadt, there were 92 admissions for enteric fever and 11 deaths. Of the 92 cases, 15 said they had been inoculated, a few were doubtful, and about 70 had not been inoculated. Of the 11 deaths, one had been inoculated once, the others had not been inoculated.

From these figures I do not think that any conclusions or even reliable inferences can be drawn. One knows nothing as to the relative number of men inoculated or not in the different corps from which the patients came. Some of the men on admission were not in a condition to say whether they had been inoculated or otherwise. In not a few cases the patients did not know whether they had been vaccinated or inoculated against enteric, as on some of the ships the inoculations against enteric were performed on the arm. There are many other sources of error which I need not go into, but I fear that any statistics bearing on this question, derived from the hospitals in South Africa, will not be of any great value. At the same time I feel convinced, from the cases I saw in the hospital, that the attacks of enteric were, as a rule, much milder in the inoculated than in the non-inoculated, and the duration of the disease was much less.

RELATION BETWEEN CARDIO-VASCULAR AND RENAL DISEASE, WITH REFERENCE TO DIAGNOSIS AND TREATMENT.

By A. O. J. KELLY, M.D.,

Philadelphia, U.S.A.

In the early stages of granular kidney compensatory cardio-vascular symptoms—increased pulse tension, accentuation of the aortic second sound, and physical signs of hypertrophy of the left ventricle, are valuable aids in the diagnosis. When cardiac compensation fails, the diagnosis is difficult. The symptoms then resemble those of a primary cardiac disease with secondary renal affection. When dilatation of the heart occurs, it is often difficult to determine whether the cardiac mischief is primary and the renal affection secondary from congestion, or whether the case is one of granular kidney with

failure of cardio-vascular compensation. In either case the general condition of the patient is much the same: there are the general and local evidences of embarrassed circulation; the urine is diminished in quantity, of increased colour and specific gravity, and contains albumin and casts. In primary valvular disease of the heart the murmur may disappear temporarily when marked cardiac debility develops. On the other hand, in granular kidney, if the cardiac dilatation be sufficient, relative mitral incompetency may arise and a murmur may be heard.

The diagnosis may be made, in most cases, however, by bearing in mind the following facts:—In congestion of the kidney the casts are usually hyaline and the albuminuria varies from time to time with the cardiac activity. The history and the evidences of congestion of other organs are important points in favour of congestion of the kidneys. If the urine remains albuminous, in spite of the subsidence of signs of congestion in other parts of the body, if the specific gravity of the urine diminishes, and if, in addition to hyaline casts, a few epithelial casts are found, nephritis is evidently present. [We would also add that ophthalmoscopic examination is of great service. Albuminuric retinitis, if present, would show that the patient was suffering from granular kidney or a late stage of chronic parenchymatous nephritis.]

The therapeutic test is of great value in the diagnosis. If the administration of digitalis is followed by marked improvement in the condition of the patient, with disappearance of casts and albumin from the urine, the diagnosis of congested kidney is indicated. But if with cardiac improvement albumin and casts do not disappear, nephritis is indicated.

In the treatment of granular kidney no medicine is required at first. The patient should avoid excessive muscular exercise, and the action of the skin should be promoted by wearing suitable underclothing. The writer recommends milk diet for a while, especially if the patient be obliged to take to his bed. Then vegetables and fruit should be added. Meat may be taken once a day, and eggs are very suitable. Alcohol should be prohibited. Occasionally a saline purgative should be given. When the heart begins to flag, nitroglycerine and caffeine are valuable. The nitroglycerine may be given three or four times a day in tablets containing $\frac{1}{100}$ gr. each, or in minim doses of the 1 in a 100 solution. Caffein is best given in 3-gr. doses at the same time. The nitroglycerine slightly lowers the arterial tension and the caffeine acts as a mild cardiac stimulant and diuretic. Marked improvement follows the combination of these drugs. The dyspnoea, vertigo, headache, etc., disappear even in severe cases. This treatment should be continued for four to six weeks and then interrupted for a week or ten days. The treatment by nitroglycerine and caffeine is also efficacious in warding off an attack of uræmia. When there is no marked cardiac debility, digitalis should not be given. The routine administration of iron is not to be recommended, as it tends to constipate and produce headache. When marked cardiac dilatation arises and there are signs of lack of compensation, digitalis should be given in large doses. If good results are not obtained in four days, it is not likely to be of service, and strophanthus should be given instead. Strychnine also is often of service. In the late stages of the disease iodides are of little use. In the early stages, particularly if there be considerable arterio-sclerosis, they may be of service.

A MIRROR OF PRACTICE.

NOTE ON A CASE OF PROTRACTED STUPOR OR TRANCE.

By DAVID DRUMMOND, M.D.,

Senior Physician to the Royal Infirmary,
Newcastle-upon-Tyne.

D. B., a clerk, aged 26, was admitted into the Royal Infirmary, Newcastle-upon-Tyne, on March 31st, 1900, in a state usually described as lethargy, trance, or stupor.

History.—His was always more or less melancholic and reserved, and religious to the verge of fanaticism. During the previous two years he became less and less communicative and increasingly taciturn, and for twelve months prior to his admission he seldom spoke unless addressed, lost his appetite, and became thin and pale, but attended regularly to his employment until seven weeks before his admission, when he voluntarily retired into private life, and spent his time reading the Bible and taking solitary walks. A little later he declined to leave his bed, and refused food, and towards the end of March his illness culminated in a "fit" (?), when he passed into the state to be presently described.

Family History.—A neurotic family history was elicited. His grandfather died in an asylum and his brother committed suicide, whilst one brother died of phthisis during the patient's stay in the infirmary.

Condition on Admission.—He was a tall, spare, sickly, and anæmic young man. There was no history of sexual irregularities. At the time of admission to hospital it was stated by friends who brought him that he had not moved or spoken for a week. He lay motionless and took no notice of his surroundings. His eyes were open and appeared to stare in front of him with a far-away look that suggested subconscientiousness. His limbs were cold, flaccid, and unresisting. The tongue was coated and the breath foul, and nutrition much lowered. The reflexes, superficial and deep, were just perceptible, but the corneal reflex was active and the lids blinked in response to a menacing movement in front of the eyes. A very searching examination failed to discover evidence of organic disease of the lungs, heart, kidneys, etc. The contents of the bladder and rectum were passed unconsciously, and there was a tendency to a sacral bed sore.

After-history.—He slept well, closing the eyes naturally, but could be roused without difficulty. Liquid nourishment was administered through a short rubber tube attached to the spout of a feeding cup. When the fluid filled his mouth, he swallowed reflexly, and in this way four pints of milk, two pints of beef-tea and two eggs were given daily. For the rest, the treatment consisted in attending to the skin and massage with passive movements. The strongest faradic current available produced no response, and week after week he lay like a non-sentient being, moving neither arms nor legs, and apparently cut off entirely from the outer world. The pulse was fast, about 100, and the temperature varied from 97° to 98° F. At first it was supposed that he was absolutely unconscious, but the nurse in charge came to a different conclusion, for on informing him that his

brother had that day been buried, she observed that tears came into his eyes. That he was really conscious was established months later, when, on recovering his speech, he mentioned by name the clinical clerk who noted his case at an early period, and then left, to return again in a few months after improvement had set in.

About the middle of May he developed dry cough, and the temperature rose to 103° F. The left lung was found to be dull on percussion all over, and air entered imperfectly. The signs were those of pleural effusion, save that the heart was exposed to the left of the sternum. At first tuberculous disease was suspected, but soon the condition was cleared up by the nurse turning him on his face, when a quantity of foul-smelling mucous poured from the left bronchus and air entered almost immediately. It was probable that some of the food stuff had entered the trachea and blocked the left bronchus. On another occasion a large septic abscess developed in the tonsil which prevented him swallowing for several days, when rectal alimentation was practised. During this attack the urine contained a large quantity of albumen with blood and casts.

Recovery.—Notwithstanding these accidents, his condition at the end of seven months began to improve. He first moved his lips in a manner that encouraged the nurse to introduce a grape into his mouth, which he slowly sucked; then his arms and later his legs, but the power over the muscles of his limbs returned very slowly. Speech returned later, and he is now making slow, but sure, progress towards recovery.

Remarks.—The case differs somewhat from both anergic and melancholic stupor: from the first, in that consciousness and memory were not entirely in abeyance; and from the second, in that the muscles were flaccid and absolutely unresistive.

OTOMYCOSIS IN THE TROPICS:

By H. CAMPBELL HIGHT, C. M., M. D.,
Physician to the Royal Palace, Bangkok.

OTOMYCOSIS, or the growth of fungus in the external auditory meatus, is apparently a rare disease in temperate climates, if one may judge from the scanty literature on the subject. During eight years' work in Singapore and Bangkok, however, my experience has been that it is quite a common—if not the most common—disease affecting the external auditory meatus which one meets with in the tropics. The reason for this appears to be that all the conditions favourable to the growth of fungi are present—namely, heat, moisture, and the presence practically everywhere in abundance of the spores of the fungi. All my cases were in adult Europeans. Children are said to be exempt from the disease.

Symptoms.—These vary in intensity according to the severity of the case. There may be simply a sensation of blocking of the ear with slight impairment of hearing. Itching, pain, and often a considerable amount of watery discharge, is complained of, and the patient notices that his pillow has been stained during the night by a yellowish fluid which he finds exuding from one or both ears. Both ears are usually affected, but often in different degree. When an attack of acute diffuse inflammation of the meatus supervenes, as is unfortunately a frequent complication, great pain and sleeplessness follow, and often a considerable rise of temperature is noted for a few days.

Physical Appearances.—In typical first attacks the meatus is seen to be filled up with a soft wool-like substance which varies in colour, according to the type of fungus present. As I have seen it, it is usually of a pale lemon yellow or a very pale yellowish green. On passing a probe into the canal, the obstruction is found to be soft and moist and is readily removed. The walls of the canal may be found to present quite a normal appearance, but as a rule they are somewhat reddened, and the irritation may have gone as far as to have led to some desquamation of the epithelium. In cases in which the attention of the patient has been suddenly drawn to his ears by an acute attack of pain and deafness, it will be found that there are signs of extension of the catarrh to the middle ear. In chronic cases, besides the soft masses of recent fungus, impacted masses of a material like sodden newspaper are found in the meatus. These come away in large scales, or even casts of the canal, and the walls are found to have undergone thickening, so much so as in some cases to hide the tympanic membrane. Microscopical examination of the fungus reveals the presence of such common fungi as the *penicillium glaucum*, *aspergillus*, and more commonly in my experience the *massor mucedo*.

The complications noted in my cases were diffuse inflammation of the external auditory meatus, acute serous catarrh of the middle ear, chronic catarrh of the same, perforation of the membrana tympani, swelling and even abscess of the lymphatic glands at the angle of the jaw, and eczema of the meatus and pinna. The acute adenitis, the result of septic infection from the ears, was so severe in one case as to require the administration of chloroform on two separate occasions in order to open abscesses on either side of the neck.

Diagnosis is usually easy, and is at once settled by the microscope.

Prognosis.—This is a readily curable disease, but is only so if the case be taken charge of by the physician himself. To hand over the details of treatment to the patient is a plan which leads to much trouble and

disappointment. I have known of cases going on for weeks and even months when carefully attended to.

Treatment.—As much of the fungus as possible should be removed with a cotton and probe, and then the canals should be well syringed with a warm solution of bichloride of mercury (1 in 5,000). The canal is then thoroughly dried with cotton wool, so as to get rid of all water which favours the growth of the fungi, and finally it is sponged with a solution of bichloride of mercury in absolute alcohol (1 in 1,000). This gives rise to considerable pain for a moment, but it soon passes off. The alcohol is allowed to evaporate, and then the meatus is plugged with sterilised cotton-wool, which is not removed until the following day. It will then be found that many of the spores that had resisted the action of the germicide applied the previous day have germinated in the interval, and there is apparently as much fungus as before. It is not so dense, however, and is more easily removed by the same means. This process is repeated daily until no more fungus forms, then the eczema or other complication is treated in the usual way. After the fungus has ceased to grow I often insufflate a powder of boric acid 2 parts, bismuth subcitrate 1 part, and oxide of zinc 3 parts. Such a combination completes the cure not only of the oto mycosis, but also of the eczema of the meatus.

Prophylaxis consists in keeping the ear canals very clean and dry, and especially in avoiding the entrance of sea water, which, by reason of its deliquescent salts, apparently conduces more than fresh water to the growth of the fungi.

LARGE URETHRAL CALCULUS OF FOUR YEARS' STANDING : OBLITERATION OF MEATUS.

By T. M. SHAH, L. M.,

Medical Officer to the Junagadh State Hospital.

GANGADAS P., male, aged 45, admitted on 27th September 1900 with urethral calculus of irregular conical dimensions lodged in the penile portion for the last four years or more. A large fistulous opening on under the surface of penis exists, through which all urine is voided. The margins of the opening are white, fibrous, cicatricial. The stone is visible through the aperture. The meatus externus is closed, and the portion of urethra about half an inch long anterior to the seat of stone is obliterated. As the stone has increased in size and partly blocks up the fistulous opening, patient has to strain in voiding urine.

Operation under Chloroform.—The opening on the under surface of penis was enlarged by incising the urethra downwards towards scrotum and the calculus extracted.

It measured $1\frac{1}{2}$ inch in length, $\frac{3}{4}$ inch broad at its base, which was towards the meatus, the apex pointing to bladder.

Director was then forced through the obliterated portion of urethra and brought out from the meatus.

The edges of the old urethral opening were paired and then the aperture was closed by a number of horse hair sutures. Female catheter was then passed into urethra from meatus and tied in, so as to afford easy vent to urine.

28th.—Passes all urine per catheter.

30th.—Has fear : temperature 101° : passed some urine per wound and rest per catheter.

2nd October.—Catheter came away : it was reintroduced : urine passed both ways.

10th.—Greater portion of urine is passed per meatus. Patient resists introduction and retention of catheter, and left hospital half cured. Had he stayed in hospital longer and allowed retention of catheter, the abnormal opening in urethra would have entirely closed.

URETHRAL CALCULUS, PHIMOSIS, PENILE INCISION.

By T. M. SHAH, L. M.,

Medical Officer to the Junagadh State Hospital.

18th December 1900.—DHARAMSHI J., a male child, aged 3 years, was brought by his parents, complaining of painful micturition and manifest symptoms of urinary stone. On examining, after administering chloroform, the prepuce was found in a phimosed condition. It was circumcised. Stone was detected in the middle of penile portion of urethra. It could not be dislodged. Meatus was incised, but it could not be extracted through it.

Skin (after excision of phimosed prepuce) was drawn behind and the urethra was incised in its under surface just on the seat of stone which was then removed from this opening. Horse hair sutures brought the margins together, skin was drawn forward and stitched to the preputial mucous membrane as usual in cases of circumcision. The incision of meatus was also closed by sutures. Iodoform and lint were applied and retained by strap of sticking-plaster. The incision healed by first intention, urine was entirely passed through meatus, and the little patient was discharged well in a week.

Remarks.—It is very rare that penis has to be incised longitudinally for the removal of urethral calculus. As a rule, it is either forced out externally per meatus or pushed back into bladder. Penile stricture, fistula and wound of urethra are considered difficult of cure, but, as in the case under report, I have had several similar successful results after performing urethrotomy in penile region.

Indian Medical Record.

6th February 1901.

THE MEDICAL PROFESSION OF INDIA AND THE DEATH OF OUR QUEEN EMPRESS.

The Council of the Indian Medical Association held a special meeting at its Office, 50, Park Street, Calcutta, on the 26th January, and unanimously adopted the following resolution:—

RESOLVED THAT—

"The Council of the Indian Medical Association, as representing the local medical profession of the Indian Empire, do hereby express the profound sorrow of the medical profession of this Empire at the lamented death of our venerable and beloved Sovereign, the late Queen-Emress, and they respectfully offer, through H. E. the Viceroy, their humble and heart-felt condolence with His Majesty the King and Emperor, and the Royal Family, in their bereavement."

INDIAN MEDICAL ASSOCIATION.

OFFICE AND LIBRARY, 50, PARK STREET,
Calcutta, 30th January 1901.

To—The Private Secretary
to His Excellency the Viceroy.

DEAR SIR,

I beg to send you, for submission to His Excellency the Viceroy, the annexed resolution of the Council of the Indian Medical Association.

Yours faithfully,

JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

PRIVATE SECRETARY'S OFFICE,
GOVERNMENT HOUSE;
Calcutta, 31st January 1901.

DR. J. R. WALLACE, F.R.C.S.,
Secretary, Indian Medical Association.

DEAR SIR,

I have to acknowledge the receipt of your letter of the 30th instant, and am desired by His Excellency the Viceroy to thank you sincerely for the expressions of sympathy and condolence which you have been good enough to send to him on behalf of the Council of the Indian Medical Association upon the occasion of the lamented death of Her late Majesty the Queen-Emress; and to assure you that they will be transmitted to the proper quarter.

Yours faithfully,

W. LAWRENCE.

Private Secretary to the Viceroy.

I. M. S. MEN AS PRIVATE PRACTITIONERS. A PUBLIC SCANDAL! A STATE ENQUIRY DEMANDED.

In a recent number of this journal, which has been placed before His Excellency the Viceroy, His Honour the Lieutenant-Governor, the Director-General, I. M. S., and the Inspector-General of Civil Hospitals in Bengal, we published the regulations of Government which allow and control the system of private practice by I. M. S. men in large Indian cities. It has been sufficiently proved by those regulations that I. M. S. men may engage in private practice, only if it does not interfere with their public duties.

It is a most unpleasant task to lay charges of neglect against members of the medical profession, either collectively or individually, and we are very reluctant, under any circumstances, to do so. But in this matter of private practice by I. M. S. men, we have an exceptional and anomalous system, which finds no parallel in any other State service in India, where officers, paid for certain definite duties, are permitted to engage in private enterprise. As a matter of fact, the rules of Government positively forbid, under penalty of dismissal, any official from accepting gratuities or professional fees for services rendered in a private capacity, and they forbid such services being rendered at all.

The I. M. S., however, represents, not only in this peculiar instance, but in almost every fibre of its constitution, a huge system of anomalies. In the régime of the Honorable East India Company, medical officers in its service were allowed to engage in private practice and to receive professional fees. But surely it cannot be held that the difficult conditions under which skilled medical aid were obtainable a century ago, remain unchanged to-day, and that concessions and provisos that were justifiable then, are justifiable now. Yet it is upon this obsolete and ancient ruling that I. M. S. men claim their right and privilege to do what no other State-paid servants dare to do. We maintain that the continuance of this practice is the great stumbling-block which prevents the best men in India from entering our medical colleges, as they see nothing but starvation before them, so long as Government doctors are permitted to dominate the field of private practice in this country. The same may be said of a good class of the practitioners in Great Britain, who do not dare to come to India, so long as the door to independence is blocked by I. M. S. practitioners.

But to return to the question of the grave public scandal involved in this matter. Let us see what a certain class of I. M. S. men—say the I. M. S. "professors" of the Calcutta Medical College—have to do in the way of a single day's official duty.

We find from the Government of India Circular No. 602D. of 7th February 1898, that in addition to the work of being medical officers of the Medical College Hospital and Professors of the College, I. M. S. officers, so engaged, have also to attend gratuitously, whenever called upon to do so, day or night, a large number of gazetted and non-gazetted officers of the various services of Government in Calcutta. Thus we find this important duty of personal attendance by College Professors in Calcutta apportioned numerically as follows:—

	Gazetted.	Non-gazetted.	Total.
Professor of Anatomy ...	87	1,442	1,529
Professor of Midwifery ...	99	1,456	1,555
Professor of Surgery ...	63	1,447	1,510
Professor of Ophthalmics ...	164	1,456	1,620
Professor of Materia Medica ...	82	1,314	1,396

Putting this huge instalment of State duty as an adjunct to the work of attending 80 patients each, in the Medical College Hospital, and lecturing to a class of 200 to 400 students, not only in the regular course of lectures, but in bedside teaching, it is matter for bewilderment how these overburdened officers get through even a portion of this work.

Without attempting to lay a definite charge of neglect of duty against any medical officer engaged in the above work, we simply ask, is it possible for a man to perform this list of official duties thoroughly and efficiently, and yet to find time for private practice? When one comes to consider the arduous and onerous duties of a physician or surgeon to a large public hospital, his labors as a clinical teacher of a large class of students, his liability to be called up in to attend any serious case in his hospital, and his moral as well as his legal obligation to be accessible for such important and urgent official duty, it becomes transparently clear that such a man should, in simple and honest regard for his official duties, for which he receives a fairly handsome State salary, be within call for such work. To indulge in general and family practice renders honest execution of public duty of the kind here indicated, either absolutely impossible, or at least a very precarious possibility.

Now, when we consider the facts, what do we find disclosed? We observe that an I. M. S. professor spends an hour, or an hour and a half, at the College Hospital in the morning daily; that many urgent cases, which demand his personal attention in the hospital, are not seen by him, or they are hurried over with a promise that they will be seen the next day. That this kind of neglect happens, constantly and daily, and that many poor patients suffer for lack of timely aid, is an undoubted fact. This is no fancied picture, no stretch of imagination, no biased condemnation, but it is a sad, solemn and undeniable fact. The grievous complaints of many patients, the testimony of nurses, all go to prove the truth of this lamentable condition of affairs in the Medical College Hospital. Let a public enquiry be instituted, and the results will astound the Government and put an end to this iniquity of private practice in a single day. We simply ask for a fair and unbiased public enquiry into this whole question. It is not fair to decide the matter by the "spick-and-span" condition of things in the hospital on the occasion of a previously announced visit by the Lieutenant-Governor or by the Inspector-General of Hospitals. There must be a thorough investigation by an independent body of public men. This is the only way of getting at the truth, and of eradicating a grievous scandal, root and branch.

We are not alone in condemning private practice by I. M. S. men, nor in attaching to it a train of evils which are inseparable from such a system. We find the *Public Medical Commission of 1878*, consisting of two Indian Civilians and four I. M. S. officers, in its important report to Government, makes the following statement:—"The Committee consider that private practice has much to do with the irregularities mentioned (waste of Government stores by pilfering, and neglect of patients), inasmuch as the time of the officers concerned has been so occupied as to make them trust too much to their subordinates."

There is no escape from this straightforward condemnation, and we can only add that what was true in 1878, is magnified trebly in 1901, and it becomes the solemn duty of the Government to cause its medical servants to give a full and honest account of their stewardship.

THE I. M. S. IN STRAITS FOR CANDIDATES, THE WAY OUT OF THE DIFFICULTY.

"THE Private Medical Practitioners, for whom twenty openings now exist in the Indian Medical Service, will be engaged for one year, Government reserving to itself the power to terminate the agreement on one month's notice. The pay offered is Rs. 600 a month for those holding the Diploma of Public Health, and Rs. 500 for Associates of Home medical institutions, not so qualified. A few openings may also not improbably be found for retired Military Assistant Surgeons holding the necessary diplomas."

Such is the public announcement in the daily papers. We learn also that 29 vacancies are to be competed for in the next London competitive.

Why not have a competitive examination in India for the I. M. S.? Graduates of our Indian Universities are rightly considered as well educated as medical men in England. Why not then give them an opportunity of showing their fitness for Government service by a fair and square competitive examination? In fact, why not establish a rule that henceforth competitive examinations for the I. M. S. shall be held simultaneously in London and in Calcutta? All these dreadful forebodings about not finding suitable men in England will then cease, and men of a really better stamp—for we certainly think an Indian M. B., or M. D., is far better educated than holders of British corporate licenses—both European and Indian, will enter the I. M. S. from our Indian Colleges. The solution of the problem of finding candidates in sufficient numbers for the I. M. S. lies in opening the door of competition to Indian and Anglo-Indian graduates from local Universities.

This idea of offering temporary employment in the I. M. S., to men holding British diplomas in Public Health, is a deliberate hoax of the Director-General, I. M. S. No man in India knows better than he, that no one but a starving "ne'er-do-well," will throw up his chances of securing private practice, no matter how little it gives him, to accept the most insecure and unsuitable of posts, in which, in the present temper of the Director-General, I. M. S., no man "hailing from India" is likely to give satisfaction. We venture the suggestion that this astute official is already gloating over the opportunity of being able to point a moral from the certain failure of this insincere offer which Surgeon-General HARVEY makes to medical men in India. He means to inform the Government that "*suitable candidates are not to be found in India*," and he will then offer the further apparently reasonable counsel, "*obtain candidates in England*."

We feel it our duty therefore to warn the Government against the devices of the head of the Medical Department. Let the Government of India order a special board of examiners to assemble and test the fitness of candidates for not twenty, but a hundred appointments in the I. M. S. Let the tests, both theoretical and practical, be even more severe than the London competitive, and let the result prove the excellence of this new field for candidates for the I. M. S.

We venture to prophecy that the Government of India will get a specially good supply of medical officers for the vacancies in the I. M. S., and that this act of justice to Indian Medical Colleges will save the Government from a dilemma, which its advisers, from interested but selfish and questionable motives, are determined to represent can only be got rid of by applying for imported medical labor from England.

COMMENTS AND NEWS.

ENLARGEMENT OF THE SPLEEN IN CHILDREN (SPLENIC ANÆMIA.)

In a paper contributed by Dr. SAMUEL WEST, M.D., F.R.C.P., Assistant Physician to St. Bartholomew's Hospital and Senior Physician to the Royal Free Hospital, at the last annual meeting of the British Medical Association, the subject of enlargement of the spleen in children was discussed. We cull the essentials from the *British Medical Journal*. After dealing with the general structure of the spleen, and touching lightly upon the enlargements seen as a consequence of specific fevers, septic diseases, etc., attacked that enlargement associated with profound anæmia and known as *splenic anæmia*. Two groups were distinguished—splenic anæmia of the adults and splenic anæmia of the infant.

Splenic Anæmia of the Adult (Splenomegalia Primitiva).—

Symptoms: extreme progressive anæmia, usually without emaciation; early progressive enlargement of spleen; no enlargement of lymphatic glands; attacks of severe pain in splenic region, ending fatally sooner or later with profound anæmia, repeated hæmorrhage and extreme asthenia.

Splenic Anæmia in the Infant.—Peculiar anæmia and enlargement of the abdomen: complexion waxy, ivory-like colour, with a tinge of olive-green, which was very characteristic: abdomen hard, and enlargement of spleen often obvious to the eye: child not emaciated, but very feeble; blood shows solely changes of anæmia: little or no enlargement of lymphatic glands: most of the other symptoms were accounted for by the great anæmia: many of them are cardiac, short breath, rapid and feeble pulse, dilated heart with hæmic murmurs, palpitation and often eczema: general tendency to bleeding, recurrent epistaxis, petechiæ and later a hæmophilic condition: digestive system disturbed: diarrhoea frequent: liver enlarged in 50 per cent.: leucocytosis and often pyrexia: splenic enlargement easy to make out and not tender to palpation: urine usually unaltered: many children are rickety and some syphilitic. Histologically the enlarged spleen is found to be simple hyperplasia with slight fibrosis, and nothing more. The changes in the blood are those of simple anæmia. Nucleated red cells and megalocytes are often present in small numbers, but the eosinophile cells do not vary. If there be any increase in the number of white cells, it affects only the lymphocytes and this stands in direct relation with the fever. The affection runs a chronic course, lasting some months, but in the end many cases got quite well. In most of the cases recovering the enlarged spleen took more than twelve months to become normal: in other cases there were repeated recurrences, and in some the enlargement continues with little or no change for some two or three years. In most of the fatal cases the anæmia steadily progresses and the child dies of asthenia, and in some to intercurrent disease such as bronchitis, diarrhoea, etc. This affection commences almost invariably in infants or very young children, and when discovered for the first time in older children, has probably dated from infancy. The liability of the sexes were equal. The treatment was that of anæmia: good food, plenty of fresh air and light, cod-liver oil, hypophosphates, iron, etc.

Relation to Syphilis.—Enlargement of the spleen was almost constant in active syphilis of the child: among infants with congenital syphilis it was found in at least 50 per cent., and in a yet larger percentage among still-born syphilitic foetuses. It was only in this variety that anti-syphilitic remedies did any good.

Relation to Rickets.—Different authors varied in their figures. In about 60% of cases of rickets, enlargement of the spleen was not present. There was no relation between the degree of rickets and the size of the spleen. There was no doubt, however, that syphilis was occasionally, and rickets frequently, associated with splenic anæmia, that in neither case was the association constant, and that they could neither of them be the sole cause. The speaker then remarked on the relation which existed between the anæmia and the splenic enlargement. There were three possible alternatives: (1) The enlarged spleen may be the cause of the anæmia; (2) the anæmia may be the cause of the enlarged spleen; and (3) both the anæmia and the splenic enlargement may be joint results of some common cause. If the first was true, it had to be explained why the disease ran such an utterly different course in the adult and the infant. In the adult the changes in the spleen were referred to a peculiar cirrhosis or fibrosis of the organ which affected mainly the capsules of the Malpighian bodies and led to their atrophy. If this was the true explanation in the adult—and it was an open question—it could hardly be at the same time a sufficient explanation in the infant, in whom no pathological change of this kind was found. If neither of the earlier explanations were correct, it would seem to follow that the third explanation was the true one. It might be, as some held, that any condition of ill-health serious enough to lead to profound anæmia in infants might be associated with splenic enlargement. If this were true, it would follow that when the ill-health was cured the splenic enlargement would disappear. At the same time there were many objections to so wide a view as this, and it followed that if there were a common cause, it was not known as yet.

OYSTER FEVER.

In a communication to the *Practitioner*, Dr. JOHN WILLIAM MOORE, M.D., President of the Royal College of Physicians, Ireland, discusses the subject of fevers contracted by oyster-eating. We cull the essentials. The writer divides oyster-poisoning into three forms:—

I. Acute gastro-enteric catarrh: sudden seizure of acute gastro-intestinal disturbance: nausea, vomiting, purging, entire loss of appetite, thickly coated tongue and unquenchable thirst. After a few hours of misery the patient recovers rapidly, the poison having been eliminated. Dr. MOORE inclined to the belief that the irritant effects of the poison were in the first instance localized in the stomach, but it was possible that the gastro-enteric symptoms might be of a central nervous origin.

II. A specific continued fever, probably due to ptomaine poisoning through absorption: elimination not having been effected, poisonous albumoses were formed from the proteids during the early stage of putrefactive decomposition in the stomach and bowels, which were probably fever producers: the fever lasted from a week to a fortnight, and was accompanied by profound depression of mind and body and might terminate fatally by convulsions, coma, heart failure or peritonitis.

III. True typhoid fever, the poisonous oysters having acted in the capacity of hosts to EBERTH'S *bacillus typhosus*. Lastly, after having given specific instances of the last two varieties, Dr. MOORE describes an interesting case, in which all three phases of oyster poisoning presented themselves in succession: here the gastro-enteric irritation failed to eliminate two poisons with which the unsound oysters were charged—one of these produced an albumose or ptomaine fever, and toward the end of the third week from infection the more slowly acting poison of typhoid fever produced the

Characteristic features of that disease. The writer agrees with Dr. SIDNEY MARTIN'S conclusions that food poisoning due to bacteria may be considered under three headings: (1) Before being eaten the food may have undergone putrefactive changes, with the formation of poisonous chemical substances. The symptoms then were of rapid onset. (2) Putrefaction may not be present in the food when swallowed, but putrefactive processes in the food may subsequently occur in certain conditions of the small and large intestine and produce toxic symptoms which brought this class of cases into close relation with the first class. (3) Putrefaction may not have occurred, but the food may contain pathogenetic micro-organisms which, when swallowed, set up symptoms of poisoning. These cases, like the infective diseases, were characterised by a period of incubation, and not infrequently they produced special local lesions elsewhere than in the gastrointestinal track.

WORK AND MERIT.

Success is the goal of every man. In all the professions and trades which corrupt us, work and merit are inalienable conditions of success. Illusive schemes and combinations, excessive and sensational claims, fraudulent methods, gambling speculations and confidence, games of every description, the cleverest quack and charlatan, all fall in the long run. Temporary success may be theirs, but it is the success of the thief, and brings with it the pangs of apprehension and alarm. There is nothing established, certain, well-regulated, in such lives. They must be prepared to "move on" and begin over again continually. They live in glass houses, against which the stones of public opinion fly thick and fast.

If any man obtains a measure of permanent success in any calling, thorough investigation discloses that he has some message of good or utility to some class of men. A particular vocation may be misunderstood by many, it may be misrepresented, its aims and objects may be obscure; but if it lives and thrives, it has some elements of helpfulness to somebody.

Correspondingly, when a man fails to succeed, the cause, under any and all circumstances, is within himself. It may be a physical cause, a mental impediment, a moral weakness, but it comes from within.

Success, of course, is a relative term. It does not mean money-getting alone. Financial success is only one form of success. A man who is a good lawyer, a good doctor, a good teacher, who serves well in any department of life, is a success, and is often rewarded with a happiness which no money can buy. If, in addition to good work, he has tried to do as he would be done by, and reared his children in the same faith, he is a success as a man as well as a worker.

If the energetic and reliable man observes business principles, he will have financial success commensurate with the circumstances and conditions which govern in his particular line of endeavor.

The most successful clinician can hardly expect financial success if he keeps no books, makes no effort at punctual collections, or lives in an isolated, sparsely-settled or very healthy community.

The absence of business methods and the lack of system in their observance are the two great obstacles in the way of financial success in the profession. One type of doctor is too slack in enforcing his claims, and another makes a practice of "sticking" his wealthy patrons. No honest tradesman would follow such a policy. It would prove ruinous. Some rival would speedily take his business away from him.

So it proves in medicine. The rich man is seldom "bled" more than once. It is a mistake to presume that wealth is

so vain or proud that it enjoys protection. Men who have made money in a hard struggle against odds know the value of a dollar perfectly, and there is a rankling awareness in the sense of being swindled and imposed upon which can never be explained away.

Good service at a moderate, uniform price holds old patrons and brings new ones. "Try my doctor, or my lawyer. He will give you good advice at a reasonable figure," is the way it works. On the other hand, "Do not go to—." He will fleece you unmercifully, and his opinion is not worth any more than others."

Because a man is loose and careless in his affairs, pursuing no system with his accounts and obligations until he finds himself pressed by creditors, does not justify him in trying to make a few wealthy patrons balance his ledger.

Yet this is the argument advanced by many really able and intelligent physicians. They make bad debts and need money, so they bleed those who have it to the limit of endurance.

Such a practice is dishonest, outrageous and reflects discredit upon the profession generally. Physicians who follow it will gradually lose their practice, and find themselves in old age friendless and forsaken, railing at Providence and the world as causes of a failure for which no one is responsible but themselves.

THE TROPICAL RESIDENT IN COLD WEATHER.

THE *Medical Times and Hospital Gazette* says:—Practitioners in Britain will have many patients on their hands during the present cold spell, who have previously resided in warm climates. Hepatic derangements will constitute the majority of the conditions requiring treatment, and as they arise from the effects of cold on a tropical liver, the treatment is puzzling at times and frequently unsatisfactory and disappointing. The usual hepatic stimulants, for the most part, fail to relieve the patient, and cathartics will be found to aggravate the evils. A cold spell is the season which will make or mar the health of a person who has resided for a lengthened period in warm countries, according to the therapeutic use which the cold season is put to. Cold weather is a potent agent for good, provided the old tropical resident takes advantage of it; and the only way to obtain that advantage is out-of-door exercise. If our all-too-short, dry cold season is spent in-doors, the chief advantage of tropical residents coming to Britain for change is lost. Walking, especially when snow is on the ground, is a valuable therapeutic agent. The medical practitioner in Britain is apt to think that because a patient under his care is "upset" by the cold spell, that it is well to keep indoors—a fatal mistake; for not only will the patient not improve, but the remedial action of the cold season is missed.

When malarial sequelae, such as an enlarged spleen, are present, the weather to be welcomed is a cold, dry atmosphere; and when this is combined with a fall of snow, the old malarial patient should, and usually does, feel at his best if out-of-doors exercise is taken. A moderate enlargement of the spleen yields more readily to exercise in cold, dry air than to any other line of treatment. The cold itself may be inimical to the sexual development of the parasite, but, in addition, the stimulating effect upon the circulation, more especially of the spleen, is calculated to quicken the blood-current and excite the contractile elements of the organ, with the result that a permanent reduction of its abnormal size obtains. In advising a tropical resident, therefore, who has taken up residence in Britain for the winter, the practitioner ought to discourage his patient against the idea of running away from the cold and wintering in a mild climate.

Rather should he encourage his patient to face the cold, to take advantage of it by being out-of-doors and to avoid hepatic stimulants and derivatives. Winter, and not summer, is the time the British climate proves most beneficial to the old tropical resident, and although less pleasant in many ways, more good to health will be gained by a six months' leave being taken in winter than in summer.

In bowel-complaints, however, cold must be guarded against, and exposure carefully regulated. Patients suffering from dysentery or sprue should not go out in very cold weather, or when snow is on the ground. If the dysenteric patient feels the cold much, or the liver shows signs of congestion, bed is the only place in which the patient is safe.

The age of the patient must, however, in every instance, be taken into account. Persons over the age of 55, who markedly suffer from any form of tropical ailment, do not respond readily to the stimulus engendered by cold, and their out-of-door life must be carefully watched and regulated.

THE TRUE ARISTOCRAT.

In discussing social philosophy, the aristocratic point of view is usually mentioned only to be condemned. But the aristocratic point of view, while it may be one-sided, is not arbitrary. It is the result of natural development and experience. It is founded on the knowledge of human nature, the science of government and the weight of responsibility.

The true aristocrat is *grown*, not born or made. He is Nature's handiwork, the product of her methods and processes. Experience, suffering, effort, insight, self-victory, culture, refinement, sensibility, all these contribute to train, discipline and mould the genuine aristocrat. Small wonder that the gentleman, developed by nature in this school, should feel a certain contempt for the levelling tendencies of a Socialistic Democracy. He knows that things cannot be equalised by going down-hill, for Nature is "agin" it.

Life is simply a great hill named Difficulty, and when the aristocrat gets to the top, he naturally feels like scorning those who want to hang around the bottom and pass laws that there is no top or blow it off with dynamite. Neither does he particularly enjoy being called a heartless oppressor, because he will not take the fruits of his labors and scatter them broadcast.

It is a mistake to say that aristocrats live by privilege. No one does this but fools and knaves. The price of privilege is slavery to something or somebody. Endow a man with great estates, and if he does not live soberly and discharge his responsibilities with a reasonable measure of right and justice, he begins to degenerate in health, mind and character. The administration of his estates, or his business, as the case may be, pass into the hands of abler parties by inalienable natural laws.

Such a man may remain the nominal owner, but he is not an aristocrat, and the only privilege he enjoys is that of being a glutton, a libertine and a wine-bibber. Do we really envy men the chance to indulge their lower natures—to commit moral and physical suicide? The forces which pull us down are stronger than those which lift us up. Few of us can afford to do without the continuous spur of necessity. In few is the spirit fine enough to hear whisperings from the other world.

The aristocrat seldom makes any defence of charges made against him. He knows it is natural to the crude and undisciplined to grumble, complain, denounce. He wastes neither time nor breath on deaf ears and near-sighted eyes. He realizes that hatred and envy, misunderstanding and misrepresentation are the price he must pay for his eleva-

tion. He knows the inconstant nature of the multitude, their reckless abandonment to the feeling of the moment, the gusts of passion, the hasty acts, the brief repentance, the innumerable mistakes and errors which make up their lives. Pity for humanity in bondage to ignorance and passion, climbing the hill from which he looks down with such infinite pains and suffering, comes to soften his indignation.

All personal sense of offence fades from the mind of the true aristocrat. He stands in silent reverence and awe before the working of Nature's inexorable laws and forces.

Truly the arbitrary disposition is to be pitied. Always rushing blindly against these powerful unseen barriers and dams, rising half-stunned but unconscious what hit him, and rushing on with redoubled force and fury, only to catch it again. Such sights as these, while they call forth sympathy and compassion, make the true aristocrat impersonal in his attitude toward men. They enable him to steel his heart, to refrain from meddling interference and be willing to seem cruel in order to be kind, in affairs where governing and managerial capacity are called for.

A man is a true aristocrat only when he can say with reverence and truth: "Thy will, not mine, be done," yet work on courageously to the end.

BOGUS DOCTORS.

THE *Bengalee* says:—It is time that public attention should be drawn to a discussion which has hitherto been confined to the columns of medical journals. It is a scandal that persons should be permitted to pose before the community as qualified medical practitioners with the degree of "M.D." added to their names, when, as a matter of fact, they have never been inside a medical institution, and the degrees have been obtained by payment of money. Dr. WALLACE has obtained the names of the institutions in America which drive a profitable trade by the sale of medical degrees. Against these men who thus seek to practise deception the community must be protected; and not long ago the Lieutenant-Governor of the Punjab, in his Convocation speech, referred to this class of practitioners in terms which showed that he at any rate was alive to this growing evil. We are not in favour of legislation as a rule, for all legislation involves the imposition of new restrictions upon the liberty of the subject. But no man should be permitted to have the liberty to deceive; and, if necessary, legislation should be resorted to to put down this very objectionable form of liberty. This class of sharpers are not only a menace to the community, but they are permitted to perpetrate an injustice upon duly qualified medical practitioners. An American M. D., which has been purchased, is a very different thing from the M. D. of the Calcutta or the London University, which only men of tried ability and distinction can hope to win. But the public can make no distinction between the two. The public set the same value upon the one as upon the other. The public, therefore, are thus deceived, and that in a matter of life and death. Is it not, therefore, the bounden duty of the Government to interfere for the protection of the community? We are not lawyers, and we have not considered the question from the legal point of view. If the present law is sufficient, and the legal advisers of the Crown can tell us that it is so, then let the law be enforced against those who have been practising the deception. One or two good examples will suffice. But if the law is not sufficient, let it be amended to meet the new evil. The complaint is one of long standing, and we fear the evil is steadily growing. Dr. MAHENDRA LAL SINHA called attention to it so far back as January of last year in the *Calcutta Journal*

Current Medical Literature.

MEDICINE.

Convulsions Infantile: Etiology.

CONVULSIONS are most frequent under two years. There are two periods of frequency: under one month and between six months and two years.

The nature of the nerve-reaction resulting in a convulsion is not understood, but it is probable that instability of nervous tissues at this period of life favors this reaction.

Convulsions are frequently observed in adult life, and result from auto-intoxications and other causes.

Convulsant substances may be introduced from without or generated within the economy. (a) Substances useful to the economy, if they accumulate, become harmful—for instance, water, carbonic acid, mineral substances, the salts of biliary acids, soluble ferments, toxins not ferments in saliva, alkaloids of secretion in urine; (b) infectious agents may elaborate toxins; (c) organisms constantly present in the economy under certain circumstances may become infectious agents.

The instability of all the organs and tissues of the infant economy makes auto-intoxication common.

Convulsions occurring in rachitis and diseases associated with great nutritional disorders, all forms of gastro-intestinal disorders, and the acute infectious fevers, are most readily explained on the ground of auto-intoxication.

Convulsions resulting from marked disturbances in the respiratory and circulatory systems—as, for instance, asphyxia and hæmorrhage—are in all probability toxic.

The reflex origin of convulsions is probably not common. It should, however, be noted that when the so-called convulsive habit is established, reflex disturbance may bring on a spasm.—SANGER (*Med. Standard*).—*Cyclopedia of Prac. Med.*

Gastric Hyperæsthesia.

A. PICK understands under this term an increased sensitiveness of the gastric mucous membrane to chemical, mechanical, and thermal stimuli, or to any one of them. Thus a patient with good appetite has pain when certain articles of food or drink are taken, and this is not relieved until such food or drink has disappeared from the stomach. The more empty the stomach, the more certainly is pain produced by these articles. The stomach is most often hypersensitive to sugar, fat, and carbohydrates. There is in these cases no pain when the stomach is empty. Of thermal stimuli the stomach is more often sensitive to cold. The abnormal sensations may vary, amounting sometimes to severe pain, and even vomiting may occur. It is characteristic that fluids are as badly borne as solids, or even worse. As to chemical stimuli, sometimes acids cannot be taken, as they produce so-called heartburn or even cramp-like pain in the stomach region. Heartburn occurring a couple of hours after food is usually due to hyperchlorhydria. PICK is convinced of the reality of this acid hyperæsthesia. Sometimes along with it there are typical signs of hypersecretion. Past gastric affections, over-eating, psychical influences, mental overwork, hysteria, neurasthenia, influenza are among the causes of gastric hyperæsthesia. Pain, eructation, heartburn, and vomiting are the chief symptoms. The pain is usually diffuse and disappears when vomiting supervenes; it may be lessened by faradism. The vomiting is characteristic in so much that fluids are more often

vomited than solids. Sometimes vertigo and faintness are complained of. The diagnosis is based upon the healthy state of the gastric juice and the occurrence of periods free from symptoms. The diagnosis from gastric ulcer may be difficult. The treatment must be directed to the neurosis on which the disease depends. The feeding is important. The faradic current is useful. The treatment is largely suggestive. Medicinal agents occupy a secondary place; cocaine and menthol are the most efficient. The use of alkalies is only symptomatic treatment, and of these *magnesia usta* is the best for allaying the heartburn.—*Brit. Med. Jour.*

Epilepsy.

DR. HERMANN BEER (*Klin.-therapeut. Wochenschrift*) divides the subject as follows: A. Genuine epilepsy. Epileptic attacks without apparent cause. B. Symptomatic epilepsy. (1) Intoxicant epilepsy. Alcohol, lead, carbon dioxide, ergotin, antipyrin, arthritis (urea), nephritis (urea), intestinal sepsis. (2) Infectious epilepsy. Syphilis, cholera, variola, morbilli, sepsis. (3) Diseases of the brain. Emboli, apoplexy, tumors, multiple sclerosis, hyperæmia. (4) Reflex epilepsy. Masturbation, menstruation, pregnancy, constipation, intestinal parasites, and dilatation of the stomach, cicatrices, thrombosis in the external auditory canal or in the Eustachian tubes. (5) Traumatic epilepsy. Injuries of the head. (6) Cardiac epilepsy. (7) Physical and mental over-exertion. Irregular mode of living, worry, and depression of spirits.

Etiology of Cirrhosis of the Liver.

HYPERPLASIA of the interstitial connective tissue of the liver, with secondary contraction, results essentially to the organ through the portal vein or the hepatic artery, possibly also through the bile-duct. These influences are principally either toxic or bacterial. Of the former, some are derived from without, as alcohol, lead and highly irritating foods. Bacteria may cause cirrhosis in part directly and in part indirectly, through the poisons they generate. Other toxic substances, generated in the intestines as a result of fermentative processes, or resulting from deficient functional activity of certain organs, such as the liver, the kidneys, the skin, may also contribute to the development of hepatic cirrhosis. Sometimes no etiologic factor can be determined. As the irritating cause reaches the liver either through the portal vein or through the hepatic artery, the type of the resulting diseases will vary accordingly, with the development, on the one hand, of the lesions and symptoms of ordinary portal or atrophic cirrhosis, or on the other of biliary or hypertrophic cirrhosis. Cirrhosis of the liver may also arise in consequence of circulatory or biliary stasis or of the presence in the blood of particles of dust. The most commonly accepted cause of hepatic cirrhosis is alcoholism, but in a discussion of this subject, ROLLESTON contends that alcohol does not induce cirrhosis directly, but rather by leading to the production of sclerogenic poisons or by enabling such poisons to exert their pernicious activity on the liver.

Stuttering.

LET the patient repeat sentences, drawing the vowels and pronouncing the consonants sharply, but distinctly, maintaining the conversational tone throughout without rhythm, and avoid the singing tone. When the patient finds himself thus speaking several sentences fluently at the first sitting, the psychic stimulus is pronounced. The method can be applied to quite young subjects.—LIEBMAN.

SUMMARY.**Aural Tuberculosis.**

FERRERI, in the *Archivio Italiano di Otolgia, etc.*, writing on the diagnosis of tubercle in chronic aural suppuration, lays down the following propositions:—

(1) It is necessary, from a diagnostic as well as a therapeutic point of view, to determine the true nature of a chronic suppuration of the ear when there is a suspicion of tuberculosis.

(2) As a careful and exact means of establishing the existence of an osseous caries, an opinion from a dermatologist may be of the greatest value.

(3) As the presence of caries is not absolute testimony in favour of the existence of a specific tuberculous lesion, we ought to call in to our aid all other possible means of research.

(4) In the present uncertainty of our knowledge, the best course to follow is to make the tuberculin test, and to remove for microscopic examination the pre-mastoid lymphatic gland.

Treatment of Blisters.

ARTHUR H. WARD advocates the following: The blister is incised and the raised epidermis cut completely away with sharp scissors; no overlapping fragment beneath which microbes might develop is left. The surface is then carefully dried and painted with several layers of salicylated collodion. A circular piece of soft linen is cut rather larger than the exposed surface, and this is plastered on with more collodion, which is worked well into the meshes of the material. Several more coats of collodion are put over all. This makes a strong protection to the abraded surface, and the patient can at once walk with comfort. If a blister has been neglected and is inflamed, it should be treated with antiseptic lotions for a day or two before the method is applied.

Technique of Lumbar Puncture.

THE location for entering should fulfil three requirements: (1) Where the needle could find a ready entrance; (2) the tip should point in such a way as least likely to produce damage; (3) the fluid obtained should be rich in sediment. Any one of the three lower lumbar spaces should be chosen. At the lumbo-sacral space the fluid should be richer in sediment. The patient should assume the sitting position, but in the delirious, or comatose, there is greater difficulty in operating in this position. The upright position is generally confined to small children. An essential point to remember is that the greatest degree of flexion should be maintained; if the child is sitting, it should be bent well forward; the operator should stand on the right side of the patient and bend over the body.—L. A. CONNOR.

Nasal Empyema.

THE conclusions of COBB's article are given as follows: (1) That the whole chain of catarrhal symptoms of the nose, the nasopharynx and of the ears is due to empyema of the nasal accessory sinuses. (2) That this empyema is the result of an infective inflammation of the accessory sinuses in which the drainage is insufficient. (3) That the malformation of the posterior end of the middle turbinate, which he has described in this paper, plays an important part in the establishing of the nasal empyema which causes postnasal catarrh. (4) The chronic catarrhal inflammation of the middle ear may result from the catarrhal condition of the nasopharynx, either by extension of the disease, by continuity of tissue, by the forcible blowing of the irritating secretion into

the middle-ear cavity, or by closure of the Eustachian tube from involvement of the mucous membrane in or around its entrance. (5) That there is no evidence of chronic catarrhal inflammation of the middle ear is caused by obstruction to nasal respiration, unless the obstruction is associated with empyema of the accessory sinuses. (6) That those cases of chronic catarrhal inflammation of the middle ear which are caused or made worse by nasopharyngitis cannot be cured until the nasal empyema which causes the nasopharyngitis is first cured, and that mechanical treatment directed to the ears is only palliative and does not free the patient from the danger of an acute exacerbation of the disease. (7) That many cases of nasal empyema may heal spontaneously under favorable conditions, and the more recent the case, the more probable it is that this will occur. (8) That the accessory sinuses have a tendency to free themselves of inflammation, and that treatment should be directed to assist nature to this end. (9) That it is possible to cure practically every case of nasal empyema, and therefore every case of nasopharyngitis depending on it.

Ligation of the Abdominal Aorta.

KEEN reports a case of ligation of the abdominal aorta for aneurism in which the patient lived forty-eight days, collateral circulation having been established. The death was due, as in other cases, to cutting through the vessel by the ligature. To prevent this accident, which seems almost universal, he has devised an instrument for the compression of the aorta, which he illustrates, and which avoids the danger of pressure on the thoracic duct and requires only the opening of the abdomen and its application to the vessel. This instrument has been experimentally tried on dogs and the following are the conclusions deduced: (1) That in dogs paralysis of the hind legs follows complete obliteration of the aortic stream. (2) That the paralysed parts may regain their entire health even after forty-eight hours' compression. (3) That three and one-half hours of compression will not interfere with the complete restoration of the paralysis. (4) That at least after twenty-four hours, and possibly less, the collateral circulation may re-establish the continuity of the circulation. (5) That the aorta may be clamped in the dog for one hundred and ten hours, and yet the collateral circulation be established sufficiently to nourish the posterior extremities. (6) That the clamp can be placed on the aorta, at least in the dog, either in separate parts, or as a whole. (7) That it can be readily removed without injury to the aorta.

Topography of the Facial Nerve in its relation to Mastoid Operations.

ROBERT DWYER JOYCE, M.R.C.S., says:—(1) The facial canal lies altogether in front of the mastoid process, and a drill sent straight in from any point on the surface of the latter cannot injure the nerve.

(2) Measured from the point B, the facial canal was in 43.8 per cent. of cases more superficial than the external semi-circular canal; in the same percentage of cases this was just reversed; and in the remaining 13.4 per cent. these two structures were the same distance from the surface. Thus the external semi-circular canal cannot be taken as a guide to the depth of the facial nerve.

(3) The average distance of the facial canal from the point B is slightly less than that of the external semi-circular canal from the same point.

(4) In removing the outer wall of the attic, it should be remembered that the external semi-circular canal is almost always (81 per cent.) nearer the surface at the point C than the facial nerve; however, as it is 1.5 mm. higher than the latter, it is almost out of danger; besides, it has a thicker covering of compact bone in this situation (attic) than the nerve.

OBSTETRICS AND GYNECOLOGY.

Treatment of Abortion.

CHEEVERS summarises the history of the treatment of abortion. Thirty years ago it was all expectant; later, with the advent of antiseptics, the use of the curette was advocated for every case. Under the auspices of WINCKEL a reaction set in about ten years ago, the expectant treatment being again advocated. At the present time the question whether the routine treatment should be expectant or operative—curette or finger—is hotly debated, though all authorities are agreed that (1) the uterus must be evacuated somehow before the patient can be considered to be out of danger, and (2) with symptoms of danger active treatment must be begun. They differ, however, as to the method to be used. Some content themselves with plugging the uterus and vagina, while others would operate. The operators, again, form two schools—one would use the curette in spite of the cervix being but slightly dilated, the other requires sufficient dilatation for the introduction of the finger and exploration of the cavity. Rapid versus gradual dilatation is another disputed point. The writer then gives his own views on these questions. He believes that immediate evacuation of the uterus, generally by means of the curette, is the method of choice in all cases. It is impossible to foretell how and when any case of inevitable or incomplete abortion will terminate, and precious time may be lost by waiting. As a rule, the cervix is sufficiently dilated for the curette to be used at once; if not, a few HEGAR's dilators can be passed with very little pain, and therefore without an anæsthetic. The fragments of the ovum can be removed by the finger or the curette; by which is largely a matter of individual predilection. The curette is certainly preferable in the first weeks of pregnancy, and is always easier to sterilise than the finger. It has been urged in favour of the finger that digital exploration gives more exact information of the actual state of things than the curette. This is not the case except in the later months, when it may be difficult to decide whether the instrument is in contact with uterine or placental tissue. The finger is much more painful than the curette, and an anæsthetic is often required, necessitating, as it does, pressure on the abdominal walls with one hand, and on the perineum with the clenched fingers of the other. If the finger has been used, it is always well to finish up with the curette, which is a great prophylactic against hæmorrhage, endometritis; and, finally, a uterine douche should be given in all cases. For late hæmorrhages the curette is the best hæmostatic. If the case has been left, and the cervix closes up, it must be dilated. If the symptoms are urgent, the writer dilates rapidly under chloroform; but if there is no great haste, the dilates first with laminaria tents, and then further with HEGAR's dilators if necessary. In this way an anæsthetic is avoided, which is a great point in private practice, without considering the added risk of the chloroform. The writer therefore advocates the early use of the curette, because (1) it is simple and rapid, (2) it does not, as a rule, require an assistant. From his own experience of 500 cases he is convinced that its dangers (perforation of the uterus, etc.) have been much exaggerated, and that other methods which require either dilatation of the cervix or packing the uterine cavity are by no means free from danger.—*Brit. Med. Jour.*

Diagnosis of Ectopic Gestation before Rupture, Based on Eleven Cases.

DR. JAMES F. BALDWIN, of Columbus, Ohio, read a paper on this subject, which consisted of a brief report of six cases of tubal pregnancy which, added to five similar

cases previously reported by him, made eleven cases in which he had made a diagnosis of tubal pregnancy and had operated before the occurrence of rupture, his experience having been in direct contradiction to the dictum of LAWSON TAIT that such an early diagnosis was not possible. His argument was that in a large number of cases such an early diagnosis was entirely feasible, and would be made as a routine when the attention of intelligent general practitioners was sufficiently directed to the subject. He said that, while there were no pathognomonic symptoms of tubal pregnancy, the following points would usually be found in these cases. The patient gave a history of several years of sterility (many exceptions); she had missed a menstrual period, perhaps two of them (numerous exceptions); she had noticed some unusual pains in the pelvis, which she would probably describe as boring, gripping, or colicky in character, these pains being situated usually in the region of an ovary. She had perhaps within a few days of the time of consulting her physician had a more or less irregular hæmorrhage; perhaps had discharged pieces of membrane which she supposed indicated an abortion, and consulted her physician with the idea that such was the case, owing to the hæmorrhage and the pain and the suspicion of an existing pregnancy. Possibly, however, there had been no suspicion of a pregnancy, as the woman had accepted her sterility as incurable and had dismissed from her mind such a possibility. On making a vaginal examination, if the conditions were at all favorable, the examiner would find upon one side or the other of the uterus, or back of it, a fusiform, quite well-defined cystic tumour, about the size of a pullet's egg or a little larger. This tumour would probably be quite tender on pressure, quite symmetrical in outline, and usually distinctly pulsating. When such a tumour was found in a woman in whom there was reasonable grounds to suspect a pregnancy; when the uterus at the same time was found somewhat enlarged, and having the feel of pregnancy, but not enlarged so much as one would expect in a pregnancy of so long continuance as the history indicated, a presumptive diagnosis of tubal pregnancy was warranted, and the matter of an operation should be carefully and without delay considered. To render the early diagnosis of ectopic pregnancy possible, it was necessary for physicians to learn to suspect it, and to examine patients with that suspicion in mind. The physician who, without making any examination, told all middle-aged women who came to him complaining of irregular hæmorrhages that they were merely having the change of life, would not be likely to make an early diagnosis of cancer of the uterus, and he would probably tell patients who came to him with symptoms of ectopic pregnancy that they were merely threatened with a miscarriage. He would make no further investigations, and would hence uniformly fail to make a diagnosis. The physician, however, who, having in mind the possibility of an ectopic pregnancy, thoroughly examined all patients whose history and symptoms pointed to this condition, would in a large proportion of cases make a correct diagnosis, and by prompt intervention would achieve a signal triumph for himself and his profession.—*New York Med. Rec.*

Treatment of Uterine Polyp.

DR. SERILEAU (*La Rev. Médic.*) divides the treatment of polyp into four classes:—

1. Visible polypus with small pedicle. The tumor is seized in forceps and twisted several times, by means of which it is torn from its attachment.

2. Visible polypus with medium-sized pedicle. The cervix is dilated with laminaria tents, the tumor is twisted as before and its pedicle is cut with blunt scissors.

3. Concealed polypus. The cervix must be dilated; this permits the diagnosis to be verified. If the pedicle is of medium size, the preceding method of treatment is resorted to. If the contrary proves to be the case, it enters into the next category.

4. Polypus, concealed or visible, with large pedicle. (a) Bilateral verticle section of the cervix may prove inconvenient and insufficient, justifying (b) a median section of the uterus. This requires a transverse incision of the mucous vaginal covering on the anterior aspect of the cervix, with detachment of the peritoneum as high up as may be deemed necessary. This is the method of choice in the treatment of uterine polypi with large pedicles.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Internal Secretion of the Ovary.

ARTHUR W. JOHNSTON writes that retained excretions are the causes of nearly all nervous conditions, whether at the menopause or during menstrual life. There is not an iota of proof that the ovary has any other function than the manufacture of eggs. The writer believes the rule to be that if a woman's menstruation is for any reason, except pregnancy, delayed, she is very apt to have symptoms closely approximating those of the change of life. This being so, he is led to believe that the internal secretion of the ovary is a myth. The ovary, then, not having any kind of internal secretion, the troubles which accompany the menopause, both natural and artificial, are due to a faulty oxidation and excretion. One other cause of this condition is the intestinal infection that goes with nearly all these cases, and this allows the colon bacillus and its associates to contaminate the nitrogenous bodies with their ptomains before they are absorbed into the blood. Until we get rid of the old superstition of "ovarian influence" and similar terms which we have heard for so many centuries, the reproductive functions will never be thoroughly understood. As to the limits of conservative surgery: When an ovary and its accompanying tube can be left in a healthy condition, so that their functions can be easily carried out, they should be preserved, but those dangerous experiments which result in the leaving of a scrap of one ovary in one part of the abdomen and piece of a tube in another, or the transplantation of an ovary from one patient to another, should be condemned.—*Med. News*.

Study of the Vascular Mechanism of the Testis.

DIXON concludes from the study of the vascular mechanism of the testis that the organ is supplied with vasomotor nerves, and that it undergoes changes in volume passively with the blood pressure and actively as a direct result of vasomotor activity. These alterations, although well defined, are insignificant in comparison with the changes in other organs such as the kidney. The testis does not necessarily follow the vascular alterations of either the kidney or splanchnic area; thus, after injections of testicular substance, the volume of the testis and intestine expands, whilst the kidney contracts. On the other hand, after smaller injections of cantharidin, the testis and kidney contract, whilst the splanchnic area becomes dilated; in contrast to both these nicotin usually produces immediate constriction of both intestine and kidney, but induces dilation of the testis. Of the substances inducing vaso-dilation of the testis, the following are among some of the most defined: Cantharidin (late), valerian, gold (late), spermin and allied bodies, caffeine and fresh extracts of testis. The question of "internal secretion" and the significance of a dilated condition of the testis need not be discussed; but it is evident that, as in other glands, an active dilation of vessels will lead to increased activity.—*Phil. Med. Jour.*

Nature and Distribution of the New Tissue in Cirrhosis of the Liver.

THE following conclusions are reached by SIMON FLEXNER: (1) In all forms of cirrhosis the white fibrous tissue is increased. (2) Along with the increase of white fibrous tissue there is a new formation of elastic tissue. This new elastic tissue is derived from pre-existing tissue in the adventitia of blood-vessels and the hepatic capsules. (3)

Both white fibrous tissue and elastic tissue, in all forms of cirrhosis, may penetrate into the lobules. This penetration takes place along the line of capillary walls or follows the architecture of the reticulum. The chief distinctions between the histology of atrophic and hypertrophic cirrhosis depend upon the degree of extra-lobular growth and the freedom with which the lobules are invaded. In hypertrophic cirrhosis there would appear to be less interlobular growth and an earlier and finer intra-lobular growth. (4) The alterations in the reticulum, *per se*, consist, as far as can be made out at present, of hypertrophy rather than hyperplasia of the fibres. It is still uncertain whether any of the differential methods now in use suffice to distinguish between the reticulum and certain fibres derived from the white fibrous tissue of the periphery of the lobules.—*University Medical Magazine*.

Relationship between Cancer and Tuberculosis.

I. D. NAGLE gives a list of investigators who have studied the relationship of these two diseases. BURDEL declares that the appearance of cancer and tuberculosis in the same family cannot be due solely to accident, but must be the result of an intimate relation between the two diseases. CROIZER reports twenty-four cases and A. GOUIN forty-two cases of coincidence of cancer and tuberculosis. The author has in the past ten years studied the family history of more than seven hundred tuberculous patients, and found that in eighty cases the pre-existence of cancer in one or more parents was discovered. He firmly adheres to the belief expressed by CARMICHAEL in 1809, that "carcinoma and tuberculosis belong to the same family of diseases."—*Medical Examiner and Practitioner*.

Basophilic Granulations in Red Blood Corpuscles.

DR. M. LITTEK (*Ref. Fortschritte der Medizin*.) says:—In a series of more or less severe cases of anemia, which were partially of idiopathic and partially of traumatic origin, he found a large but varying number of granular erythrocytes, becoming more numerous on increase in the severity of the affection and diminishing on improvement. The granulations varied from minute dust-like particles to coarse granules, sometimes occupying the peripheral portions of the cell and at others densely filling the entire cell.

The granules occur in all those forms of red blood corpuscles which are found in anemic subjects,—in polychromatophile degeneration, in megalomicro-polikocytes, and especially in the hæmoglobin-poor, primary forms; finally, in all those forms of nucleated red cells met with in anemic blood,—in the normoblasts and megaloblasts.

Great clinical significance cannot be attached to the granulations, because they may occur in every form of anemia. They stain with all nuclear dyes of the methylene-blue group. As to their origin, he is inclined to the view that a nuclear disintegration within the nucleated red blood corpuscles is responsible for their presence.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Dampness.

THE influence of damp weather upon the sensitive man is remarkable. If there is a sore spot anywhere it hurts worse. Latent weakness of any of the organs is brought out by congestion and irregularity of function. Suppressed coughs start into activity. Neuralgic nerves speak out. Old chronic rheumatism renews its life. Corns are aggravated.

The pulse is slow, the heart weak, the blood-vessels lack tone, the muscles are flabby. The venous and lymphatic systems become engorged. The mind is languid and clouded. There is a general depression of vitality.

Damp weather favors the development of septic and typhoid states. Sick people should be protected from its influence as much as possible by building open fires in the sick room, clothing them in flannels, rubbing them, increasing the food-supply, and giving drugs of a stimulating and supporting character temporarily, such as strychnine, quinine, etc.

Education of our Daughters.

WITH the numerous avenues now open for woman's usefulness in the active world, the question of the wisest education for a girl awakens anxiety in the hearts of many mothers.

It is a difficult matter to advise as to the training of a daughter; first, because environments differ; secondly, because there can be no strictly parallel cases. One can only suggest the most practical and beneficial way of accepting the general condition of things.

Let a girl learn that which practically will be of the most benefit to her.

Health of mind demands strength and robustness of body.

Let her understand the human mechanism, and at the same time realize what is required of a woman, and how essential it is for her to be perfect in health.

In connection with this should be mental development; then add to these accomplishments, if you please, music and languages; and last, but not least, train her to be a good housekeeper, for this is of more importance than the accomplishments spoken of above.

Indeed, what is more deplorable than to allow a young girl to enter womanhood or wifehood without a practical knowledge of a household and its many requirements?

There are those who scoff at the idea of learning how to cook, considering it a homely art; but the mistress is as necessary to the home as the master.

It may be argued that so many women of to-day enter business or professional life that a practical knowledge of general housework will never be needed.

It is, however, impossible to tell how soon a woman may meet somebody who will make her believe that wifehood is her truest sphere, and these same busy women will tell you regretfully, perhaps bitterly, that the only chance they had to learn these helpful necessary household duties was when they were living with their parents.

So, mothers, learn to be charitable, broad, and noble, that your children may see in you an exemplification of the great mental and moral lessons of life.

What Constitutes A Healthy Man.

A PERFECTLY healthy man should have a strong, healthy heart: one not weak from disease or the excessive use of tobacco, alcohol, or other causes; lungs well developed and that

expand rhythmically with ample breathing space for health and a surplus for work or disease; muscles well rounded and elastic, made hard and strong by use, and carrying, like the camel's hump, reserve energy for trying journeys; nerves nature's electric wires, properly insulated and connected, bringing all the various organs of the body into one perfect system, and all under the control of a brain of just proportions, well balanced and convoluted, not soft from disease or destroyed for the need of rest; educated for the high duties it was intended to perform, not only to stand guard over and protect the health and life of the individual, but at the same time to furnish feeling and thought and pleasure for the human being. All of these organs, when properly constructed and adjusted and perfect in every detail, go to make up a healthy individual and one possessing within himself a power of resistance not easily overcome by disease-producing organisms.

Eyes of School Children.

MILLIKEN pleads for the utilization of the oral method of teaching to a larger extent than is now practiced, especially in the earlier years of school life. The greater use of the blackboard with lectures, thus avoiding close eye application, would prevent much mischief in the future life of the pupils who suffer from any degree of ocular defect. He insists on the need of the earliest possible discovery of any existing ocular weakness in school children.

Waiver of Privilege in Action for Services.

IN an action brought by a physician to recover for medical services, a counterclaim for damages was set up, the defendant and his wife testified as to his symptoms and treatment during his entire sickness, and he called as witnesses two surgeons who testified that they were called, and found him suffering from a disease other than that for which the plaintiff had been treating him, and performed two operations upon him, after which he speedily recovered. Then the plaintiff called as witnesses two physicians who had been called in consultation by the defendant's consent, but at different times, before the two surgeons mentioned were called in. The evidence of these two physicians as to their interviews with the defendant, and what they then learned, was strenuously objected to by him as privileged and inadmissible under the statute. But not so thinks Judge DUNMORE. He holds, *Hennessey vs. Kelley*, in Oneida County Court, New York, that, as applied to the facts of this case, the decisions seem to be that the defendant had the right to insist that all the physicians who attended him should remain silent as to his ailments, and as to any personal communications between him and them of a confidential nature. But when he testified in his own behalf as to the way he had been treated by the different physicians, gave conversations between him and them, uncovered the maladies from which he was suffering, both by his own testimony and that of other witnesses, including that of two of the physicians who attended him, he waived the privilege as to the remaining physicians in reference to the matters disclosed. He then uncovered and made public what before was private and confidential. It amounted to a consent on his part that all who were present and participated in the various transactions disclosed might speak freely as to what took place. When a waiver is once made, it is general, and not special, and its effect cannot be limited to a particular purpose or a particular person. After the information has once been made public, no further injury can be inflicted upon such rights and interests of the patient as the statute was intended to protect, by its repetition at another time or by another person. The rule contended for by the defendant, the court says, would leave a physician absolutely at the mercy of an unscrupulous patient.—*Jersey Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.**Action of Quinine in Pregnancy.**

CHAMBERLENT and BRUYERE (*Jour. de Méd. de Bordeaux*) state that this question is still under discussion, and that most conflicting opinions prevail. They have therefore attempted to throw light upon the subject by undertaking certain experimental and clinical studies. A short *résumé* of the result of earlier investigators is first introduced.

In 1884 RAYER made the discovery (as he believed) that quinia is an abortifacient. One year later PETITJEAN stated that a daily dose of one gram is sufficient to provoke an abortion. Numerous cases were soon reported, however, in which quinine had entirely failed to influence pregnancy, even when given in large doses. On the other hand, instances were now and then published in which the abortive action of quinine was apparently vouched for in every way.

BREQUET, the well-known expert of malaria, states in his monograph of quinia (1855) that the drug may be given without hesitation to the pregnant woman. Conflicting cases continued to be published, and in 1872 BARTHAREZ and CHIARA undertook some researches to decide the question. They experimented on healthy pregnant women, with wholly negative results. They sought to clear up the paradox by making the malarial poison the abortifacient, while quinine, by overcoming this tendency, was rather a uterine sedative than an oxytocic. On the other hand, MONTEVERDI, studying especially the oxytocic action of the drug, found that contractions of the uterus were produced thirty minutes after exhibition of the remedy.

The array of witnesses *pro* and *con* becomes too numerous for reproduction here. Authorities like TARNIER and PINARD obtained only negative results. The most recent student of the problem, TARNIER (1899), thought that quinia might have some oxytocic power in cases of inertia only.

The clinical material of the present authors is in part as follows:—

1. Woman eight months pregnant, attacked with grippe. Large doses of quinine for five consecutive days without influence on pregnancy.
2. Woman five months pregnant—severe malarial attack. Muriate of quinia hypodermically. No influence on pregnancy.
3. Another case with negative results.
4. A very nervous woman, pregnant five months. Influenza; about seven grains of quinine. During the night painful uterine contractions as if threatening abortion. Quinine not repeated. No further trouble.
5. Negative results in woman eight and a half months pregnant. Large doses of quinine given as an experiment, patient being in perfect health.

The authors naturally conclude that in the great majority of cases quinine is inert as regards the uterus; but that in a small proportion of women, who are very susceptible to the action of medicines, uterine contractions may be excited.

Antiseptic Properties of Glycerin.

CONSIDERING the frequent use of glycerin as a means for applying various medicaments, WUNSCHHEIM considered the investigation of its antiseptic properties of importance. He tested the effect of glycerin on various forms of germs, alone and in combination with various antiseptic preparations. It has no special value as an antiseptic, and if used in combination with carbolic acid and other preparations, the antiseptics must be stronger than if used with water. A concentration of 10% carbolic acid is about as effectual as a 5% solution in water; but if the glycerin be mixed with equal parts of water, the disinfectant value is equally as good as in the pure aqueous solution.

Systematic Treatment For Locomotor Ataxia.

R. Ferri lactatis ... gr. xl.
Ext. cinchonæ ... 3i.
Ext. nucis vomicæ ... gr. viiss.
Ext. gentianæ, q. s.

M. Ft. pilulæ No. xx. Sig. One or two pills three times a day.—ERR.

For Prostatorrhœa.

R. Tinct. nucis vomicæ ... m℥ xvi.
Tinct. cantharidis ... m℥ viii.
Liq. ferri et. ammonii acetatis, q. s. ad. ℥viii.
M. Sig. One tablespoonful three times a day after meals.

Poultry-powder.

Powdered fenugreek	...	...	Oz.
Sulphate of iron	...	...	1
Powdered gentian...	...	...	1
Powdered liquorice	...	...	3½
Rice-flour	...	...	4

Two tablespoonfuls of this powder are mixed with the food for twelve fowls once daily.

Healing-salve in Sticks.

Emp. picis.
Emp. resinæ,
Adipis, aa partes æquales.

Melt together and pour into cold water. As soon as the mass cools, remove from the water, knead till tough, and form into sticks.

Blistering-liquid for Horses.

Cantharides	...	...	℥ij.
Euphorbium	...	...	℥iiss.
Amyl acetate	...	...	℥c.
Spirit to	...	...	℥xxx.

Macerate for four days, filter and wash the marc with spirit to make 1 pint.

Condition Syrup for Dogs.

Balsam of sulphur	...	...	℥i.
Olive oil to	...	...	℥iv.

Dose: One teaspoonful each day.

The balsam of sulphur is made by heating together 2 oz. of sulphur with 16 oz of olive oil in a stand-bath till it assumes the consistence of a thick balsam.

Correspondence.**WHAT IS A HOMŒOPATHIC PHYSICIAN.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—At the annual meeting of the American Institute of Homœopathy, another question of much greater and graver importance was decided, and that was the question, what is a homœopathic physician? We say of greater and graver importance, because, strange as it may appear, a large number of our schools, in their zeal to be pure HAHNEMANNIANS, would appear to ignore tacitly, if not openly, the requisite preliminary qualifications of a physician, his sole function being reduced to the mechanical comparison of the symptoms of disease with symptoms of drugs. If it were not for the law in all civilised countries to insist upon these preliminary qualifications, the HAHNEMANNIANS would abolish anatomy and physiology from their medical institutions, and with them would go physics, chemistry, and pathology as unnecessary and useless encumbrances.

If we mistake not, the pure HAHNEMANNIANS are to be found chiefly among our American confreres. And it is a matter of regret that though most of them are masters of the healing art and ornaments of the profession, not only by their special knowledge of and skill in homœopathy, but by their thorough knowledge of the whole

science of medicine, and by their general accomplishments, they should encourage such small learning amongst members of a branch of the profession, where, in addition to the special knowledge of therapeutics, there should be the highest knowledge of general medicine and of all science. It is a matter of regret, we repeat, that they should thus be the unconscious instruments of promoting what we cannot but characterise as charlatany of the worst description, because it is charlatany in homoeopathy, where no such thing ought to exist.

If the evil were confined to America, we would not have troubled ourselves about it, for in America there is enough corrective for it, and at last the most efficient corrective has been applied. Our country has been seriously affected by it. India has fallen so far from its ancient purity that it has become, *par excellence*, the land of impostures and impostors, and in no walk of life has it become so as in the medical profession, and especially in the homoeopathic branch of it. And we have the strange spectacle of America aiding and abetting the impostors by its powerful support. Nothing is easier than for the veriest ignoramus, one who cannot make an honest living in any way, to become a homoeopathic practitioner, by possessing a domestic manual and a box of medicines. And the success which such a practitioner attains in ordinary cases, especially when spoiled or given up by old school practitioners, encourages him to pursue his easy vocation with more and more persistence, and confirms him in the belief that to become a homoeopathic physician one need not go through a tedious and difficult course of regular graduation in an accredited medical institution. And in course of time he thinks so highly of his powers and abilities that he finds no difference between himself and a regularly qualified physician.

We would not object if lay, unqualified practitioners were contented with vaunting their abilities before their own patients. Strangely enough, they have actually begun a regular career of deceiving the public, and this we find they are doing by two methods. One is by sending reports of their cases and even articles to foreign journals, whose editors, somehow being made to believe that they are qualified practitioners in this country, unhesitatingly admit those articles and cases in their journals. This fact of their appearance as contributors to respectable English and American homoeopathic journals is used as a certificate to gull their ignorant countrymen into the belief of their competency and even of their superiority over the regular practitioners. We have, whenever occasion presented, sounded the note of warning to our brother-editors against admission into their journals contributions from such sources. But somehow the note does not seem to fall on the ears for which it is intended.

Yours, &c.,
NO FRAUD.

HINDU IDEAS ABOUT LEPROSY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Hindu treatises enumerate eighteen kinds of leprosy. They are divided into two groups. There are seven descriptions in the first group and eleven in the second. The most virulent forms are placed in the first group. Elaborate directions are given for their treatment. All these are worthy of being closely examined. With regard to the origin and causes of the disease, various theories have been enunciated. That there is a great deal in them which requires the attentive consideration of our medical men will not be denied by those who know anything of the Hindu medical system.

Most severe forms of penance are prescribed for lepers in Hindu religious books. Lepers are forbidden religious acts, and rights of inheritance are denied to them. "That Leper," say the *Shastras*, "is most vile in respect of all religious acts who is afflicted with ulcers on all his limbs, especially on temples, forehead and nose. When he dies, let his corpse be cast near a sacred river, or other holy place, or at the root of a sacred tree, let not a funeral cake, or libation of water be offered, nor his corpse be burnt, nor obsequies be celebrated. Should a man, through affection, burn the corpse of a leper who has been for six or even three months infected with the disease, that man must perform the lunar-penance of an anchorite." It was the sanious kind of leprosy which was most abominated. A man afflicted with slight leprosy may retain his right of inheritance under certain circumstances, but those who are affected with the most grievous form of the disease knew no pity from Hindu legislators. They are outcasts, and should be treated as the vilest of the vile. They are not fit objects of human mercy, and their very touch is contamination. A slow and torturing form of death is prescribed for them. By undergoing this penance their sin may be forgiven them in another world, but in this world they are beyond the reach of human compassion. All these ordinances are certainly very cruel, but they had a salutary effect. That the ancient Hindus believed that the sanious form of leprosy was contagious admits of no doubt. It was to isolate lepers, affected with the most grievous form of the malady, and to prevent affectionate relatives and friends from living with them, that such strict rules were laid down. Leprosy in India is known as *Maha vyadhi*, or the most grievous malady, and is classed among incurable diseases. It is sanious leprosy to which this term is particularly applied, and not to the other slight forms of the disease. In leading works on surgery, leprosy is not described as contagious.

The most prominent symptoms of leprosy are thus summed up in medical treatises: "Dusky red or livid tubercles of various sizes on the face, ears, and extremities; thickened or rugose state of the skin, a diminution of its sensibility, and falling-off of the hair excepting that of the scalp; hoarse nasal or lost voice; oozing; ulceration of the surface and the extreme factor." The tubercles vary in size from that of a pea to an olive. All parts, the face is particularly affected, and especially the nose and ears. Nothing certain is known regarding the cause of leprosy. Modern investigations agree with those made by the ancient Hindus: (1) That women are less liable to this malady than men; (2) that it is hereditary; (3) that its contagiousness is extremely problematical; (4) that a fish-diet is found to render every symptom worse; (5) that poor living, want of cleanliness, and exposure to cold and damp, are constant attendants on this application. Dr. COPLAND ascribes its origin to the use of semi-putrid meat and fish and of rancid oils; to insufficient vegetable food and to the contact of matter discharged from leprous sores.

The disease is as implacable a foe to the human system at the present day as it was centuries ago. Various remedies have been tried from the earliest ages, but without any effect. Garjan oil has not been found to be so efficacious as it was thought to be, and the hundred different remedies prescribed in Hindu books produce no marked effect. European medical men are as helpless in the treatment of this disease as "Hakims" and "Baidyas." The Jews had as great a horror of leprosy as the Hindus; and the expression of such a horror shows that the disease was thought by both the nation as beyond the range of human skill. Charlatans with their disinfestants afford as little relief to the sufferers as the most learned members of the medical faculties.

Yours, etc.,
L. M. S.

ASSAM OILS: A SUBSTITUTE FOR TEA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Attention was directed some time since to the cultivation of the sunflower for its oil, but subsequent inquiries as to the chance of its proving a valuable adjunct to, or substitute for, tea are not encouraging. The oil is considered inferior to sesame or olive for table purposes; it was condemned by the Madras Railway Company as an illuminant, and dries too slowly for use with paints. Dr. J. A. VOELCKER, of the R. A. Society, says: 100 parts of whole seed yielded 45 parts of kernel and 55 of husk, while the amount of oil in the cleaned kernel was 44.07 per cent. The average yield of oil is between 16 and 28 per cent.; the yield of seed from an experimental acre was 1,778 lbs., the proportion of oil from this being 15 per cent. Sunflowers, therefore, unless chemists can discover some remunerative use for them, cannot be reckoned upon to retrieve the fortunes of Assam. On the other hand, in the energetic propagation of the homely mustard plant there may be a means of salvation. An American physician asserts that both its cake and oil are destined to play an important part in the domestic economy of the future. The oil, as is well known, is of great service in allaying skin irritation due to exposure to the sun, and when toned down with a bland oil, such as cotton, and scented with orange or other tincture, it forms the basis of many cosmetics that impart delicacy and smoothness to the complexion, and for this purpose is quite equal to, and far less harmful than, the various mixtures having arsenic as their basis. The cake ground to a coarse powder (according to the same authority) is coming into extensive use as an insecticide and disinfectant. The demand for mustard seed is increasing, as shown by the quotations, the oil now standing at Rs. 17 per maund, and it needs but energetic pushing in Europe to constitute it a formidable rival to the several "genes" for cooking, the composition of which is not always above suspicion. Assam has long been noted for the superior quality of its mustard, and as the bheel land available for its cultivation consists of thousands of acres, a large crop could be secured. Manure is unnecessary, as these waste lands are annually renovated by floods, while mere scratching with a light plough is all the cultivation needed, the heavy dews supplying sufficient moisture. The plant can be rooted up by hand, and the whole process of manufacture performed with a minimum of hand labour during the cold weather; the roots, stems, and empty pods, moreover, form a good manure for other plants, as they contain nitrogen. Here then we have a simple adjunct, unlikely to be overdone for reasons given above, and even the plain seed sent to market would pay better than tea at Rs. 20 per maund, which seems about the average planters are likely to obtain in the future. Again, probably in no part of the world does castor grow with greater luxuriance or yield more prolifically, and before the present precarious position of the tea industry became so pronounced, planters were urged to take up its cultivation for the double purpose of producing oil and cake and raising the eri silk-worm. Rape also grows to perfection as a cold weather crop on bheel lands, though an indiscriminate mixture of all the tubers of the order *Brassica* are laid under contribution for production of the seeds, so that, unless imported stock were resorted to, the true original China variety would be difficult to select. Irrespective of the oil which realises much the same in the London market, viz., 35s. per cwt., the broken-up cake is growing in demand among farmers at home, it being found that, in addition to its qualities as a manure, it attracts the wire-worm from wheat and other cereals. Peppermint grows wild all along the rainbelt at between 2000 and 5000 feet, and should be worth the attention of the Darjeeling planters. The more valuable economic oils and resins,

such as cajuput—to give it the name it is best known by—~~chalmagra~~, ~~leavon grass~~, which latter comes from a stunted tree—require from three to four years to attain full development, and thus can be recommended to the notice only of such tea companies as possess a reserve fund. But the annuals allotted to, if taken in hand by small companies on the brink of insolvency, might tide them over their difficulties for the time being, until shareholders can make up their minds how to meet the present crisis.

Yours, &c.,

OLD PLANTER.

MEDICAL TRADE NOTICES.

A NEW FORM OF TONIC TABLOID FOR INDIA.

THE particular combination employed is said to be of considerable value in cases in which an active preparation of iron, quinine, strychnine, and in the form of phosphates and hypophosphites, is indicated. The proportions of the syrups have been determined after considerable experience of their combined use; and the equivalent of 15 minims of Easton's Syrup with 15 minims of the Compound Syrup of Hypophosphites and 30 minims of Compound Syrup of Phosphate of Iron is combined in each "Tabloid" product. Each contains approximately gr. 1/85 of strychnine.

The well-known instability of the syrups, especially when subjected to the temperature of warmer climates, has seriously interfered with their effective administration. On the contrary, the active ingredients contained in "Tabloid" Three Syrups cannot undergo decomposition, thus ensuring accuracy of dosage combined with the highest efficiency. As "Tabloid" Three Syrups are sugar-coated, they are very pleasant to take, and are found to be acceptable by the most fastidious patients. Their convenience and ready portability enable patients to continue a regular course of treatment when following the ordinary round of social, professional or commercial life.

"Tabloid" Brand Three Syrups is issued in bottles containing 100 in each, by Burroughs Wellcome & Co., Snow Hill Buildings, London, E. C.

This is a most valuable addition to the already long list of convenient and pleasant preparations which Messrs. Burroughs Wellcome & Co. have given to the medical profession.

BENZO-NAPHTHOL TABLOIDS.

We have received from Burroughs Wellcome & Co., Snow Hill Buildings, London, E. C., a specimen of "Tabloid" brand Benzo-Naphthol, gr. 5, which they are introducing to the medical profession in view of the demand for an accurately dosed and therapeutically reliable preparation of this Beta-Naphthol derivative for use as an intestinal antiseptic in typhoid fever, tropical dysentery and fermentative dyspepsia.

Owing to its insolubility in water, Benzo-Naphthol has hitherto been chiefly administered suspended in mixtures or in capsules. The "Tabloid" preparation offers obvious advantages over these methods in ease of administration and acceptability to the patient.

"Tabloid" Brand Benzo-Naphthol, gr. 5, is supplied in bottles of 100.

This "Tabloid" is strongly recommended to the profession.

Government Medical Gazettes.

BOMBAY.

THE following transfers are sanctioned :—

- Hosp. Asst. Jethmal Manikrat, from Cholera duty, Hyderabad Taluka, to Civil Hosp., Hyderabad.
- Hosp. Asst. Tirithdas Khanchand, from Cholera duty, Thar and Parker Dist., to Dispy., Rato-dero.
- Hosp. Asst. Lilaram Utamchand, from Dispy., Rato-dero, to Dispy. Garhi Yassin.
- Hosp. Asst. Choithram Pessusing, from Gen. duty, Karachi, to N.-W. Ry. Hosp., Kotri.
- Hosp. Asst. Bulchand Jawhermal, from Cholera duty, Karachi, to Cholera duty, Karachi Town.
- Hosp. Asst. Vithoba Mathuraji, from Cholera duty, Karachi, to Dispy., Kotri.
- Hosp. Asst. John Joel, from Dispy., Kotri, to Bachubai, Edulji Dinsbaw Dispy., Kiamerl.
- Hosp. Asst. Khalikdod Khudackhan, from Dispy., Kashmore, to Cholera duty, Jacobabad.
- Hosp. Asst. Balkrishna Mahadeo, from Dispy., Badin, to Dist. Prison Hosp., Karachi.
- Hosp. Asst. Gaganmal Tulidas, from Dist. Prison Hosp., Karachi, to Gen. duty, Karachi.
- Hosp. Asst. Wamon Ambaji Warty, from Gen. duty, Poona, to Roman Catholic Orphanage School, Poona.
- Hosp. Asst. Bhargao Balkrishna, from Famine duty, to Gen. duty.
- Hosp. Asst. Subrao Sheeshgir, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Sakharam Narayen, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Ibrahim Walad Ameen, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Minguel Johnston, from Famine duty, to Dispy. Murbad.
- Hosp. Asst. Vishna Narayen, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Parashram Mahadeo, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Girdharilal Dalsukhran Vyas, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Girdharilal Dalsukhran Vyas, from Gen. duty, Bombay, to Travelling Dispy., Branch Collectorate.
- Hosp. Asst. Govind Bajaram, from Cholera duty, Thana Collectorate, to Civil Hosp., Satara.
- Hosp. Asst. Anant Krishna Saighar, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Narayen Vithoji Sawant, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Narhar Pandurang, from Famine duty, to Gen. duty, Bombay.
- Hosp. Asst. Govind Rangnath, from Famine duty, to Gen. duty, Bombay.

The undermentioned are granted leave :—

- Hosp. Asst. Manaji Cuddum, Roman Catholic Orphanage School, Poona, privilege leave for three months from the 6th Nov. 1900.
- Hosp. Asst. David Joseph, Central Prison, Yerrowda, privilege leave for three months from 28th Oct. 1900.
- Hosp. Asst. Mulchand Jhamatmal, Cholera duty, Karachi Taluka, up to the 9th Sept. 1900, privilege leave for one month and half from 10th Sept. 1900.

PUNJAB.

- Hosp. Asst. Liaquat Hussain, Western Jumna Canal Dispy., Rohtak, has obtained 3 months' privilege leave, and was relieved of his duties on the 8th Jan. 1901 by Hosp. Asst. Abdul Hamid.
- On transfer from Jullundur, Hosp. Asst. Ali Ahmad was attached to the Pilgrim Camp, Mooltan, from the 8th Jan. 1901.
- Hosp. Asst. Fattah Muhammad, Ramnagar Dispy., Gujranwala Dist., has obtained 3 months' privilege leave, and was relieved of his duties on the 2nd Jan. 1901 by Hosp. Asst. Latha Ram, transferred from Kala, Jhelum Dist.
- Hosp. Asst. Kedar Nath, doing gen. duty at Rohtak, was apptd. to do special plague duty in the Gurdaspur and Shaikot Dist. from the 19th Dec. 1900.

On being relieved of the ch. of the Bahadurgarh Dispy., Rohtak Dist., Hosp. Asst. Mir Kutab Ali was transferred to the ch. of the Sirhind Canal Dispy., Sheemah, Ludhiana Dist., on the 16th Dec. 1900, relieving Hosp. Asst. Nur Mahi, who was placed on gen. duty at the Ludhiana Civil Hosp. from the 21st Dec. 1900.

Hosp. Asst. Shankar Das, at present attached to the Jhelum Canal Dispy., Ala, Gujrat Dist., having passed the English Qualification Exam. according to the test laid down in G. G. O. No. 945 of 1868, is entitled to the higher rate of pay from the 15th Dec. 1900.

Asst. Surgn. Ram Narain (II), Med. Offr., Bhakkar Sec., N.-W. Ry., has obtained three months' privilege leave, and was relieved of his duties on the 1st Jan. 1901 by Asst. Surgn. Parma Nand, transferred from Delhi.

Asst. Surgn. Umrao Raja Lal, doing gen. duty at Karnal, assumed ch. of the Karnal Dispy. on the 21st Dec. 1900, relieving Asst. Surgn. Ghulam Muhammad.

CENTRAL PROVINCES.

Civil Hosp. Asst. Muhammad Murtaza Hussain is directed to do duty under the orders of the Civil Surgn., Nagpur.

Civil Hosp. Asst. Muhammad Murtaza Hussain, doing duty under the orders of the Civil Surgn., Nagpur, is deputed on special duty at the Chhapara Cattle Fair in the Seoni Dist.

Civil Hosp. Asst. Binode Bihari Maity, doing duty under the orders of the Civil Surgn. of Hoshangabad, is granted one month's privilege leave from the date on which he is permitted to avail himself of it.

One month's privilege leave is granted to Civil Hosp. Asst. Rajoni Kanta Sahai, doing duty under the orders of the Civil Surgn. of Hoshangabad, from the date on which he is permitted to avail himself of it.

One month's privilege leave is granted to Civil Hosp. Asst. Mohendra Nath Mukerji, on gen. duty at Hoshangabad, from the date on which he is permitted to avail himself of it.

Civil Hosp. Asst. Saiyid Muhammad Mobid, attached to the Armori Branch Dispy., in the Chanda Dist., held ch. of the Famine Relief Kitchen at that stn., in addn. to his own duties, from the 2nd Oct. to the 30th Nov. 1900.

The services of Civil Hosp. Asst. Budhu Lal being no longer required for famine duty in the Civil Dept., he is directed to do gen. duty under the orders of the Civil Surgn., Hoshangabad.

Civil Hosp. Asst. Radha Kristo Das, who was on plague duty at Nagpur, was transferred to Sambalpur for famine duty in the Civil Dept.

Civil Hosp. Asst. Waman Daji Deo Sarkar, attached to the Chimur Branch Dispy., in the Chanda Dist., held ch. of the Famine Relief Kitchen at that stn., in addition to his own duties, from the 8th April to the 27th Nov. 1900.

Civil Hosp. Asst. Muhammad Amir, whose services were not required for famine duty in the Civil Dept. in the Balaghat Dist., was directed to do duty under the orders of the Civil Med. Offr., Balaghat.

Civil Hosp. Asst. Muhammad Amir, on gen. duty at Balaghat, was tempy. apptd. to the Baihar Branch Dispy. in that dist.

Two months' privilege leave was granted to Civil Hosp. Asst. Muhammad Amir, attached to the Baihar Branch Dispy., in the Balaghat Dist., from the 10th Nov. 1900.

Civil Hosp. Asst. Girdhari Parshad, attached to the Waraseoni Branch Dispy. in the Balaghat Dist., is granted three months' privilege leave from the date he is permitted to avail himself of it.

On return from the leave granted him by Deptl. order dated the 16th January 1901, Civil Hosp. Asst. Muhammad Amir is tempy. apptd. to the Waraseoni Branch Dispy., during the absence, on leave, of Girdhari Parshad.

Privilege leave for two months is granted to Civil Hosp. Asst. Dada Lakhshman Slik, on gen. duty at Raipur, from the 15th Jan. 1901, or the subsequent date on which he may be permitted to avail himself of it.

BURMA.

Hosp. Asst. Syed Mahomed Abdus Sattar relinquished ch. at the Civil Hosp., Pagan, Myingyan dist., on the 10th Dec. 1900, and assumed ch. at the Civil Hosp., Shwegyin, Toungoo dist., on the 19th Dec. 1900.

Hosp. Asst. S. Paul, on return from leave, assumed ch. at the Civil Hosp., Pagan, Myingyan dist., on the 10th Dec. 1900.

ORIGINAL ARTICLES.

AGUE, OR INTERMITTENT FEVER: ITS
ETIOLOGY AND CURE.

BY LT.-COL. MATHEW D. O'CONNELL, M.D., R.A.M.C.,
Principal Medical Officer, Peshawar District.

In malarial climates, when intermittent fevers prevail, cases are sometimes met with, in the blood of which, the bodies known as LAVEBAN'S parasites, cannot be demonstrated. It is customary to explain these cases by pointing out that if the parasite cannot be found in superficial blood, it may be found in the blood of deep-seated organs, such as the spleen, or brain, or bone-marrow, if looked for.

And if after search in such situations it still cannot be found, it is asserted that it is there all the same, even though it cannot be found.

Now this assertion is not in accordance with modern scientific methods, and I propose therefore to inquire if some more satisfactory explanation cannot be found.

After a practical experience of malarial fevers extending over 29 years, I feel convinced that these cases are due to the meteorological environment under which they occur. By this meteorological environment I mean the hot, moist, stagnant atmosphere which prevails in malarial climates. This environment may be of a higher degree of intensity in some places than in others, in some years than in others, and in some seasons of the year than in others, but its effect on those exposed to it is undoubtedly to produce an intermittent excess of water in the blood and tissues. That this intermittent excess of water in the blood and tissues affords a clear explanation of the phenomena and consequences of intermittent fever, I confidently assert. I will therefore, in the first instance, point out how this environment produces excess of water in blood, and then show how this produces an intermittent fever.

I. HOW METEOROLOGICAL ENVIRONMENT PRODUCES AN
INTERMITTENT INCREASE OF WATER IN BLOOD.

The environment under which intermittent fevers reach their highest degree of prevalence is the hot, moist, stagnant atmosphere of malarial climates.

Atmospheric Temperature.—The degree of atmospheric temperature under which they prevail is indicated in the chart. When fever is prevalent, as at Singapore, the mean atmospheric temperature is high. But that high temperature of itself is not the cause of these fevers is apparent from the temperature of Barbados shown in the same chart. There the temperature is high, but ague is not prevalent. There must be therefore some additional influence.

Atmospheric Humidity.—The degree of atmospheric humidity under which they prevail can be seen in the same chart. When ague is prevalent, as at Singapore, the mean atmospheric humidity is high. But that atmospheric humidity of itself is not the cause of these fevers is evident from the records of Great Britain shown in the same chart, where, although the humidity is high, ague is not prevalent.

Where ague is prevalent, as in Singapore, both atmospheric temperature and humidity are high. I will next proceed to make clear that exposure to such environment must produce an intermittent excess of water in the blood.

The amount of water in healthy blood is about 790 parts in 1000, but it varies within certain limits. The proportion of water depends to a great extent on the balance being maintained between the amount taken in food and drink, and the amount excreted. I take no notice of the amount formed by chemical changes within the body, as this cannot be considerable.

Excretion of water from the body takes place through the kidneys, the skin, the lungs, and intestine. Practically the amount excreted through the intestines remains constant, but the amount excreted by the kidneys and by the skin and lungs varies according to the degree of atmospheric temperature. When the atmospheric temperature is low, as in cold climates, water is excreted chiefly through the kidneys, and the excretion from the skin and lungs is small. As the atmospheric temperature rises, the quantity excreted from the kidneys diminishes, while the quantity excreted from the skin and lungs increases. When the temperature is high, water is excreted chiefly through the skin and lungs, and only in small quantity through the kidneys.

If, however, when the atmospheric temperature is high, the atmospheric humidity is also high, the excretion of water from the skin and lungs is much impeded if not altogether arrested, for it is known that atmospheric air can only take up as much aqueous vapour as will saturate it at any fixed temperature. Hence it is evident that exposure to the hot, moist, stagnant atmosphere of malarial climate must tend to produce an accumulation or increase of water in the system; and this is greatly aggravated by the increased amount of fluid taken as drink under such circumstances.

II. HOW INTERMITTENT EXCESS OF WATER IN THE BLOOD
PRODUCES AN INTERMITTENT FEVER.

The temperature of man is $F. 98.4^{\circ}$ or $37^{\circ}C.$, and this is the product of two factors—(a) the amount of heat produced within the body, and (b) the amount given off, or lost, from the body.

As regards the first, it is known that the source of heat production within the body is the metabolism or tissue change which takes place in every act of vital energy. It has long been known that this metabolism can be increased by the free internal administration of water. If experimental proof of this is required, pathologists tell us that injection of water into the blood causes a rise of temperature (PAYNE, General Pathology, p. 144). Hence there can be no doubt but that an increase of water in the blood produced by meteorological environment will in its turn produce an increase of metabolism or heat production.

But this same meteorological environment produces the increase of water in the blood by impeding evaporation of water from the skin and lungs, that this is by diminishing heat loss. If it causes increased heat

production within the body and diminished heat loss from the body, as described, the result must be increase of body temperature—fever.

Indeed this has been proved experimentally by FREY and HEILGENTHAL, who found that exposure in a Russian or hot vapour bath of F. 113° (C. 45.5°) for twenty-five minutes raised the body temperature to F. 104.3° (C. 40.3°), whilst exposure in a Turkish or hot dry air bath of F. 149° (C. 64.5°) for fifty minutes only raised the body temperature to F. 101.6° (C. 38.6°). The explanation of this is plain. In the hot dry air bath, evaporation of water from the skin and lungs, heat loss, is much increased, and keeps the body temperature down. In the hot vapour bath the evaporation from the skin and lungs is much impeded by the amount of water vapour in the air, and therefore the body temperature rises.

The temperature and humidity of air in tropical countries differ very little from those of the Russian vapour bath, and therefore this environment will as certainly, if not so rapidly, raise the temperature of those exposed to it.

It always seems to me that the weakest link in the parasitic theory of malaria is that it affords no satisfactory explanation, of that which is after all the chief clinical feature of the disease, i.e., fever. LAFERAN himself and other eminent authorities are compelled to say that the pyrogenic agency in malaria is "most likely" or "presumably" or "probably" some toxin which is liberated from the sporulating parasite shortly before or during the rigor, and which is a solvent of hæmoglobin. But the existence of any such toxin is not only not proved, it is the merest assumption. Why then attribute the pyrexia in ague to a problematical toxin born of a sporulating parasite which cannot be found in some cases, instead of to the increase of water which LIEBERMEISTER assures us is present and which PAYNE tells us will produce fever?

But although meteorological environment produces an excess of water in the blood which causes fever, as explained, it must be demonstrated that there is this excess of water in the blood of those who suffer from ague. This is probable, as the blood from such patients is described as pale, lake coloured, thin and watery (Tropical Diseases, MANSON, page 71). This probability is turned into certainty by LIEBERMEISTER, who declares that the wasting of the body in ague is sometimes concealed by the excessive amount of water contained in the blood and tissues. He says that from this cause the weight of the body may be increased as much as 10 lbs, although there may be only slight œdema of the ankles to indicate an excess of water in the blood and tissues (HILTON FAGGE, p. 48).

It is next necessary to show why this fever produced by excess of water in the blood must be of an intermittent character.

To make this evident, it is only necessary to point out that the environment which produces excess of water in the blood is of intermittent intensity, for in all climates atmospheric temperature and humidity undergo a diurnal variation. The highest temperature is reached

about 4 P.M. daily, when the humidity is, as a rule, at its lowest; and the lowest temperature is reached about 4 or 5 A.M., when the humidity is usually at its highest point. But the fall of temperature at night in the season when malarial fevers are prevalent is not sufficient to cause any considerable increase in the excretion of water from the kidneys. So that the environment which produces increase of water in the blood is more intense during a period of twelve hours, night, when, as MANSON tells us, two thirds of the attacks take place and less intense during a period of twelve hours, day. This must produce a tidal wave in the blood, in which the amount of water would reach its maximum in the early morning and minimum in the evening. It seems to me to be but an exaggeration of a process which is going on to a less extent in all climates, and which may afford an explanation of the diurnal rhythmical variation in pulse, respiration and body temperature that take place in health.

If the cause of this increase of water in the blood is thus of intermittent intensity, the increase of water will also be of an intermittent character, and so will be the increased metabolism, the fever, produced thereby.

The type of intermittent fever thus produced will depend on (a) the previous condition of the patient's blood, and (b) on the intensity of the environment. With regard to (a), it is known that in different individuals the quantity of water in the blood varies within certain limits, the average quantity being 790 parts in 1000 of blood. It will of course require exposure to the environment for some time, more or less, before the quantity of water in the blood is increased to that degree which causes fever.

Let it be assumed that the degree which causes fever is 830 parts in 1000. Then if four men whose blood contains respectively 790, 800, 810, and 820 parts of water be exposed to such environment, it is evident that the increase of water which causes fever will be most rapidly produced in the man whose blood originally contained most water or was poorest. It only requires 10 parts added to it. This accords with experience which teaches that those with the poorest or most watery blood most quickly contract ague when exposed to the environment.

It will take longer in the other men to produce the 830 parts of water, the man whose blood was in the first instance normal (790 parts) requiring the longest exposure.

Again, with regard to (b), let it be assumed that the degree of intensity of the environment to which these four men are exposed is such that it will produce an increase of water in the blood equal to 10 parts by one night's exposure. Then it is evident that the blood of the man containing originally 820 parts of water will have its water increased to that degree, 830 parts, which causes fever by one night's exposure; and although during the following twelve hours (day) critical elimination (sweat) may reduce it to the original 820 parts, still, if exposure to the environment continues, 10 parts will be added again the following night, producing the necessary 830 parts of water, increased metabolism and fever.

In this way paroxysm follows paroxysm until medical treatment be adopted, or, as will be explained hereafter, the red blood corpuscles are so much reduced that the supply of oxygen is insufficient to carry on the required oxidation: that is, the paroxysms are reproduced daily and the type of fever is *quotidian*.

At the same rate of increase, *vis.*, 10 parts each night, it will require *two nights'* exposure to produce the increase to 830 parts of water in the blood of the man containing originally only 810 parts; and after elimination (sweat) it will take *two nights* again to reproduce; that is, the fever will only be reproduced every *second* day. There will be *one* day of apyrexia. The type of intermittent fever in this case will be *tertian*.

Similarly, it will require exposure for *three nights*, at an increase of 10 parts nightly, to increase the amount of water in the blood of the man containing originally only 800 parts to the necessary 830 parts, and after elimination (sweat) it will take *three nights* to reproduce; that is, there will be *two* days of apyrexia and the type will be *quartan*.

In the blood of the man containing originally only 790 parts of water it will take still longer exposure to produce, and after elimination to reproduce, the necessary 830 parts of water. And in those with still less water in their blood, and whose excretory organs are perfect, it is conceivable that the necessary increase to 830 parts of water cannot be produced by any exposure, and in such cases we should expect immunity from the disease.

It can be seen, then, if ague is due to excess of water in the blood, produced by environment, why the type should be *quotidian* in some, *tertian* in others, and *quartan* in others; and also why those with the poorest or most watery condition of blood should most certainly and rapidly contract the disease, whilst those with naturally less water in their blood should be less liable to contract it.

In addition, if ague is due to excess of water in the blood produced by environment, it is evident why *quotidian* is the most common form in tropical climates, while *tertian* and *quartan* are the most common forms in temperate climates. For it is to be remembered that climates as regards their atmospheric temperature and humidity differ only in degree. In tropical climates, in the unhealthy season of the year, the environment (temperature and humidity) is of a higher degree of intensity, and in temperate climates lower. Hence in tropical climates the degree of hydromia that causes fever will be more quickly produced, and after elimination of water reproduced; that is, the type of ague most commonly met with in the tropics should be that with the shortest period of apyrexia, *vis.*, *quotidian*. In temperate climates, on the other hand, the environment not being of so intense degree, must of course take longer to produce, and after elimination to reproduce the degree of hydromia that cause fever; that is, the type of fever most common in temperate climates, if this theory is sound, should be that with a longer period of apyrexia, *tertian* or *quartan*. In both cases this corresponds with experience.

In unusually hot summers of cold climates the environment which causes increase of water in the blood

will also sometimes, if seldom, be found; hence the explanation of cases of intermittent fever in cold climates occasionally.

Moreover, as the amount of water in the blood depends to a great extent on the balance being maintained between the amount taken in, in food and drink, and the amount excreted, and as the amount excreted depends to a certain extent on the functional activity of certain organs—skin, kidneys, lungs, &c.—it can be seen how deranged function of such organs might of itself produce increase of water in the blood sufficient to cause fever altogether independently of external environment. By such derangement of function I would explain those anomalous cases of ague which occur in climates, seasons or localities where the hot, moist, stagnant atmosphere, the environment of ague, is not found.

Again, we know that free elimination of water from the blood in ague reduces body temperature to normal. Free sweating obviously does so. This fact in itself is strong presumptive evidence that the disease is due to excess of water in the blood, for there are many other fevers in which sweating does not produce this effect. Moreover, although sweating is the usual method of termination of a paroxysm of ague, the same result may be produced by free elimination of water from kidneys or by purging. These two latter processes, however, only reduce the amount of water in the blood, and so reduce metabolism or heat production; whilst sweating, besides reducing heat production, also increases heat loss, evaporation from the skin, and thus more quickly reduces temperature to normal.

III. HOW INCREASE OF WATER IN THE BLOOD PRODUCES ALTERATION IN BLOOD CORPUSCLES.

It cannot be said that excess of water in the blood will produce parasites, but it will produce alteration in the blood corpuscles leading to the appearance in the blood of bodies which, all admit, very closely resemble the parasites, and which others, including MANNABERG, allow are in some cases indistinguishable from them.

When there is increase of water in the blood in ague, there are present two influences which profoundly alter the blood corpuscles and lead to the appearance in the blood of the bodies referred to above which closely resemble parasites.

These influences are *increase of water and increase of body temperature*, which take place during each paroxysm. The increase of temperature may amount to as much as $F. 110^{\circ}$ ($C. 44.3^{\circ}$) in some parts of the body, such as within the portal circulation.

I will place below in parallel columns a description of the changes produced in blood corpuscles by exposure to the influence of addition of water and increase of temperature, and also a description of the appearance of malarial parasites as given by experts:—

Physiologists tell us.

1. If water be added to normal blood, the red corpuscles lose their discoid form, become spherical, swollen, and *dropical*, the hæmoglobin is washed out of them, and ultimately they disintegrate and disappear.

Experts tell us.

1. The red corpuscles attacked by the malarial parasite are usually the larger ones. They lose their disc-like shape and become spherical, swollen and *dropical*, they lose their colour and hæmoglobin, and they ultimately disappear.

2. If blood be heated, vacuoles are produced in the red corpuscles, which appear as little clear colourless shining spots that assume spherical, annular or other form. They change their form, they increase in size till they occupy half, two-thirds, or the whole of a corpuscle. They exhibit apparent amoeboid movement from contractions in the surrounding hæmoglobin, and they throw out little beaded prolongations which wave to and fro. There may be one or more vacuoles in a corpuscle.

3. The white corpuscles, which may or may not contain pigment, exhibit amoeboid movement and Brownian movement of the contained pigment. Quinine reduces the number and paralyzes the movements of the white corpuscles.

4. The result of addition of water and exposure to a slight increase of temperature is wholesale destruction of red corpuscles and production of pigment free and enclosed in spherical or various shaped bodies.

The transformation of crescent-shaped parasites and flagellation have been attributed by ROSS to variation in the density of the serum; that is, to variation in the relative amount of water in the blood. After many beautiful experiments, he, if I remember rightly, concluded that the influence which transforms crescents into spheres and produces flagellation is the abstraction of water from the serum, and that this is the influence to which crescents are exposed within the stomach of the mosquito.

MARSHALL, however, after similar experiments, concluded that the influence which produces this transformation is addition of water to the serum, and that this is the influence to which crescents are exposed within the stomach of the mosquito. Both of course cannot be right, but they agree in this, that they attribute the transformation to a variation (addition or abstraction) of water in the serum. But variation in the amount of water in the blood is precisely the pathological change which I maintain occurs in those exposed to a certain definite meteorological environment—malarial climate.

The results then of increase of water in the blood, produced by environment, are at all events, as regards the fate of the red corpuscles, the liberation of hæmoglobin, and the production of pigment, identical with those said to be produced by parasites.

The tissue chiefly destroyed by the metabolism of fever doubtless differs in different fevers, but in ague the red corpuscles of the blood are chiefly affected, leading to their extensive destruction and consequent anaemia and melanæmia.

2. Malarial parasites appear in the first instance on or in the red corpuscles as little clear, colourless shining spots of various forms, spherical, annular or other. They change their form. They increase in size until they occupy most or the whole of a corpuscle. They exhibit amoeboid movement and throw out flagella. There may be one or more parasites in each corpuscle.

3. The larger spherical pigmented parasites exhibit active amoeboid movement, and their contained pigment exhibits active swarming movement. Quinine kills the parasites and removes them from the blood.

4. The result of invasion of blood by the parasites is wholesale destruction of red corpuscles, and increase of pigment free and enclosed in spheres, crescents, &c.

Hæmolysis or destruction of red blood corpuscles is, however, a process which is always, even in health, going on within the portal circulation. The hæmoglobin there escapes from the old red corpuscles, and is in part converted into new red corpuscles, and in part into pigment. Such pigment is taken up by the hepatic cells, and forms the colouring matter of the bile and urine, &c. If it is produced in quantity exceeding the amount that the hepatic cells are capable of converting into the colouring matter of bile, urine, &c., it is obvious that it must find its way into the general circulation and into the tissues, especially of the spleen, liver, kidneys, &c., thus causing melanæmia.

Professor HUNTER, who has closely investigated this hæmolysis, tells us that it may be increased by two sets of causes—*vis.*, direct and indirect. The direct consists of agents such as water which, injected into the blood, act directly on the red corpuscles, liberating their hæmoglobin and destroying them. The indirect consists of agents which act through the medium of the splenic cells. The increased hæmolysis of disease, Professor HUNTER adds, is similar to that produced by indirect hæmolytics with two exceptions, namely, *malaria* and *hæmoglobinæmia*, which he attributes to the direct action of the parasites on the blood discs. This may indeed be so. But in cases of ague in which no parasites can be found, why attribute the increased hæmolysis to their influence, instead of to the increase of water in the blood which LIEBERMEISTER assures us is present in all cases of ague, which HUNTER asserts to be a most powerful direct hæmolytic, and which I have attempted to show in the preceding remarks is the inevitable result of exposure to the meteorological environment found in malarial climates.

During this hæmolysis, HUNTER describes the appearance of the following bodies in the blood:—

1st—*Colourless Spherules*, albuminous, and highly refractile of varying size.

2nd—*Coloured Spherules*—A red corpuscle becomes constricted at some portion, dividing into two parts, connected by a colourless portion. These are best studied by warming blood to C. 45° (F. 112°)—a temperature not much above that of blood in the portal circulation during each paroxysm of ague. The corpuscle then breaks up into a number of highly coloured spherules. This description of the disintegration of a red corpuscle by a temperature of C. 45° forcibly reminds one of the sporulation of parasites as described by plasmodists during each paroxysm of ague. In the latter, however, the colouring matter, the hæmoglobin, will have previously been washed out of them by the increase of water in the blood. Of course this resemblance of the disintegration of red corpuscles to the sporulation of parasites becomes more interesting, as it takes place within the portal circulation, the very situation where plasmodists tell us the parasites may be found when they cannot be found in peripheral blood.

3rd—*Stromata* or decolorized blood corpuscles, which are best studied by the injection of water into the blood.

Now, if these bodies, colourless spherules, coloured spherules which break up into a number of highly

coloured bodies, and stromata, &c., are produced within the portal circulation in health, and if, as HUNTER tells us, their production is increased by heat $C. 45^{\circ}$ ($F. 112^{\circ}$) and injection of water into the blood, it is obvious that their production must be increased during each paroxysm of ague when the temperature of the blood in the portal circulation is nearly as high, and when there is increase of water in the blood.

MANSON, a high authority on malaria, tells us in his *Tropical Diseases*, page 70, that the destruction of red blood corpuscles in malarial disease is greatly in excess of anything which can be accounted for by the number of corpuscles attacked and consumed by parasites. The number of parasites found in the blood might account for a destruction of one per cent. or even five per cent., but not for a 20 per cent. destruction, which is not uncommon even after a single paroxysm of ague.

But if ague is due to excess of water in the blood, as I maintain, it would not only account for a destruction of 20 per cent. of the corpuscles, but, when extreme in degree, it would explain the almost total destruction of blood corpuscles, such as is found in hæmoglobinuric fever. Increase of water in the blood must affect every corpuscle in it. The greater the increase of water, the greater will be the destruction of blood corpuscles. Hence it is that I consider hæmoglobinuric fever but an extreme degree of the pathological condition found in ague.

In the first place hæmoglobinuric fever occurs in those countries and climates where may be found at times an extreme degree of the meteorological environment which causes an increase of water in the blood. In the next place the parasitic origin of hæmoglobinuric fever is not established. MANSON, at the meeting of the British Medical Association, said that the opinion that this disease is of parasitic origin is based more on considerations of probability than on logical deduction from demonstrated fact (*British Medical Journal*, 1st September 1899, page 558). And, lastly, increase of water in the blood, as has been pointed out, causes fever, anæmia and melanæmia. When it reaches an extreme degree, it must also obviously produce hæmoglobinuræa; for, as has long been known, it washes the hæmoglobin out of the red corpuscles in the plasma. When this change is extreme, then the result must be hæmoglobinuræa.

As previously pointed out, the hæmoglobin is liberated from the corpuscles in the portal circulation in health, and formed, in part, into pigment, which is converted by the hepatic cells into the colouring matter of bile, urine, &c. As HUNTER tells us, water injected into the blood increases the liberation of hæmoglobin, and therefore increases the formation and flow of bile. If excessive, this leads to bilious symptoms, vomiting and diarrhoea. When the amount of hæmoglobin liberated is very great, greater than can be disposed of by the hepatic and other cells, then it is excreted by the kidneys giving rise to hæmoglobinuræa.

This it seems absolutely certain, from a consideration of ascertained facts, that increase of water in the blood, produced by exposure to tropical climates, will cause increased metabolism fever, liberation of hæmoglobin from

the red corpuscles, anæmia, melanæmia, bilious diarrhoea and vomiting, and hæmoglobinuræa.

Enlargement of the Spleen.—All know that the spleen becomes larger during each paroxysm of ague, and returns in the intervals at first to its normal size. Eventually, however, if the paroxysms are often repeated, it becomes permanently enlarged. That the intermittent enlargement of the spleen is one of the effects of the intermittent increase of water in, that is of volume of, the blood, produced by environment, is conceivable. It is known that, like blood destruction (hæmolytic), periodical enlargement of the organ goes on even in health, but slight in degree. That the intermittent enlargement of the spleen which takes place in ague will, if repeated often enough, end in permanent enlargement of the organ is certain; for it is known that hypertrophy of an organ is more likely to occur from transitory but repeated hyperæmia than from hyperæmia continued for some time.

Prevention of Ague.—*Drainage of the soil* in paludal districts eradicates, or at all events much reduces, the prevalence of ague. The most obvious effect of drainage of the soil is that it dries the superincumbent atmosphere. Drainage therefore reduces, or removes, one factor—atmospheric humidity—of the environment that produces increase of water in the blood.

In low-lying, flat and swampy places fevers often disappear when the swamp becomes completely flooded from heavy rain or otherwise; and this is only to be expected when it is remembered that evaporation is greater from a swamp than from an equal surface of water. Flooding therefore reduces the amount of vapour given off to the atmosphere, and this reduces the humidity of the atmosphere.

Residence in well-raised, well-built houses serves as a protection against malaria, and it is plain that the atmosphere in such is much drier than in the open, especially at night. Not only this, but in huts, tents, or perhaps within mosquito nets, the atmosphere is drier than it would be in the open.

Treatment of Ague.—All effective treatment of ague reduces the amount of water in the blood. Diaphoretics, diuretics and purgatives obviously do so. That quinine is both diuretic and diaphoretic will scarcely be denied by any one who has taken it in large doses.

When the chronic stage of ague is reached, what is so beneficial as a course of Turkish or dry air baths and massage when available, and what is more calculated to remove water from the blood?

With regard to my view that the atmospheric environment found in tropical climates produces increase of water in the blood, increased hæmolytic and melanæmia, and therefore increased work for the hepatic cells, may it not also explain the greater liability of new arrivals in such climates to hepatic disease, as well the characteristic darkness of the skin of the indigenous races?

What I have written may be briefly summarised as follows:—

1st.—The meteorological environment found in malarial climates produces an intermittent increase of water in the blood of those exposed to it.

2nd.—Intermittent increase of water in the blood by increasing metabolism, heat production, causes fever.

3rd.—There is known to be increase of water in the blood in ague.

4th.—Elimination of water (sweat) from the blood in ague reduces temperature to normal.

5th.—Increase of water in the blood causes extensive destruction of red corpuscles, anæmia and melanæmia.

6th.—An extreme degree of such increase of water in the blood produces all the symptoms and signs of hæmoglobinuric fever.

7th.—Removal from the environment that produces increase of water in the blood cures ague.

From these facts, I think it may be safely concluded that ague and hæmoglobinuric fever are due to increase of water in the blood produced by environment.

THE CLINICAL PICTURE OF EPIDEMIC INFLUENZA.

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THE subject of this paper, although well worn, is not devoid of interest. The clinical picture of epidemic influenza is a composite—several panels set into a single frame. The name of the disease is itself a misnomer, a considerable proportion of cases exhibiting no catarrhal symptoms referable to the upper air-passages. This fact is in consonance with the modern conception that many of the specific infections may affect the organism as a whole, without necessarily giving rise to certain special and localised lesions, the presence of which was formerly considered a pre-requisite to the existence of the disease. Thus the finding of intestinal ulceration is not essential to the *post-mortem* diagnosis of typhoid fever, for in this disease there may be a generalised typhoid septicæmia, or the brunt of the attack may be borne by the lungs (pneumotyphoid) or the kidneys (nephrotyphoid). So, also, scarlet fever may kill without an eruption; or in lobar pneumonia the systemic infection may be so intense and overwhelming that death takes place in the stage of engorgement and beginning consolidation, or, in the same disease, the general septicæmia dwarf into insignificance the pulmonary localization, although life has been sufficiently prolonged to allow ample time for the development of the latter.

As with these, so with influenza. The incidence of the toxin of the influenza bacillus (PFEIFFER'S) may fall sometimes upon one, sometimes upon another, organ or system; or after expending its force upon one set may subsequently involve others; or may manifest itself as a general acute toxæmia. The symptomatology of the disease is therefore extraordinarily diverse, and for this reason the disease has superseded malaria as a diagnostic scapegoat with the careless and easily satisfied examiner.

In general, after an incubation of from one to four days, the disease sets in abruptly with chilliness or, in

some instances, with a severe rigor. In women, recurring syncope is not uncommon. Fever is almost always present, but is extremely variable, ranging from 100° to 105°F., and continuing with irregular remissions for from one to ten days. Recurring chills with high intermittent fever, closely simulating malarial fever of the same type, are not very uncommon; but a blood-examination shows the absence of the plasmodium.

There is, in almost all cases, severe headache and general aching, with a degree of weakness and prostration which, except in the presence of severe complications, is out of all proportion to the apparent cause. Delirium is not uncommon, especially in women, children and neurotic men.

The general symptoms just described are manifested in varying degrees in all cases. Depending upon the special localization of the infection, certain varieties of the disease are recognized.

The early symptoms of the *respiratory form*, which is perhaps the most common, are those of a severe coryza, followed usually by pharyngitis, laryngotracheitis and bronchitis. Very commonly a careful examination will reveal a slight, patchy pneumonia with scanty physical signs. The cough is apt to be violent and paroxysmal. The occasional extraordinary persistence of the influenzal cough is one of the remarkable features of the disease, and it may prove one of the most difficult problems of the therapist. Morphine or narcotism, in addition to a long list of antispasmodics, sprays, and inhalations, has failed to arrest it, even temporarily, in fortunately rare cases. In other instances the general aching and extreme weakness may be the only characteristics which prove an apparently ordinary coryza to be a true influenza.

The *nervous form* of influenza is almost as common as the respiratory form. The fever is slight, but there is atrocious headache, severe pain in the back and limbs, and marked prostration. These may be, and often are, the only symptoms; but in a certain proportion of cases coryza and cough supervene in the course of two or three days. This is a sufficiently frequent occurrence to require a word of forewarning to the patient.

When the spite of the poison is vented upon the stomach and intestines—the *gastro-intestinal form*—there are nausea, vomiting, abdominal pain, and a profuse watery or serous diarrhoea. With these symptoms there is extreme prostration, amounting at times to actual collapse. Such cases are luckily not common, but the possibility of their occurrence during an epidemic of the disease should be borne in mind. I recall an experience of a few winters past in which seven members of one family fell ill, one following the other at intervals of two days, with the regularity of the scholastic row of bricks, three with the nervous form, three with the respiratory form, and one with the gastro-intestinal form of the disease—facts which permitted an easy diagnosis in the last case.

Still more rare is the *typhoid or febrile variety* of this disease. The fever is of the continued type, with delirium, dry, brown tongue, tympanites and other

evidences of the typhoid status. The recurring chills and intermittent type of fever which characterise a certain proportion of cases have already been mentioned.

The portrayal of the disease is incomplete without a reference to its complications, sequelæ, and occasional symptoms.

Bronchopneumonia is the most common of the respiratory complications; the lobar form less so. Pleurisy is not uncommon, but seldom terminates in empyema. Abscess and gangrene of the lung are rare sequelæ. Edema of the lungs may occur, almost invariably as a sequence of pneumonia. Enlargement of the bronchial glands, of which the physical diagnosis is very uncertain, is, perhaps, rather frequent. Indeed the persistent cough of influenza has been attributed with some show of probability to irritative pressure upon the laryngeal nerves by the swollen lymphnodes.

Certain symptoms or sequelæ belonging to the organs of circulation are very common. The pulse often remains unduly frequent or quickens disproportionately after exertion for long periods subsequent to the attack. Two instances of paroxysmal tachycardia have been noted in personal experience as a consequence of influenza. On the other hand, bradycardia may follow. An irregular pulse is not uncommon. Several cases of the so-called influenzal angina pectoris have been of much practical and prognostic interest. Women, usually but not necessarily of the neurotic type, appear to be the principal sufferers. The pain may be very severe, precipitated especially by mental emotion, less often by physical exertion, and the severest attacks may occur at night. The heart action is usually weak and often irregular. All the cases seen, in two of which a diagnosis of true stenocardia had been made by good observers, have recovered in periods varying from six to eighteen months. In all of these the patients were under forty years of age, and there were no physical signs of arterial degeneration. A weak, often dilated heart, without anginal symptoms, is by no means infrequent. Inflammation of the pericardium and endocardium may occur; so also may phlebitis and thrombosis of different vessels.

The nervous system is affected to some extent in all cases. Thus depression of spirits is extremely common, sometimes developing into an actual melancholia; and a persistent insomnia may follow an attack. Active delirium has been noted, and one case of acute mania, which recovered under sanitarium treatment, occurred last winter as a sequel of a grippal bronchopneumonia. Neuralgias are common; migraine less so. Inflammatory diseases of the nervous system may be initiated. Occasionally one sees cases presenting the symptom-group of cerebral meningitis, these symptoms persisting for two or three days and then vanishing. In two instances death occurred after violent meningeal symptoms, and the autopsies showed intense cerebral hyperemia, evidently the beginning of an acute encephalitis. In such cases recovery may occur with a resulting hemiplegia or monoplegia; the formation of an abscess of the brain is rare. Much more frequently encountered is some form of neuritis.

Neurasthenia of a light grade is perhaps the proper term to apply to the prolonged weakness of convalescence from this disease; but it is astonishing to realize the frequency with which a severe and protracted neurasthenia can be traced directly to an attack of influenza—an attack which, at the time of its occurrence, did not seem to be of special intensity. In these cases one cannot help acknowledging a special predilection of the influenza toxin for the nervous system, even when allowance is made for the natural inclination to attribute a condition to the most obvious, although not necessarily the most efficient, cause.

The spleen may enlarge acutely as in other acute specific infections. Catarrhal jaundice is a sequel of which several instances have been observed, due usually to a gastroduodenitis arising from the action of the poison upon the mucosa of this part of the intestinal tract although the jaundice may be purely of the toxæmic form.

Acute nephritis is not rare; hæmaturia and acute congestion without a true nephritis may occur. Conjunctivitis, as a part of a coryza, is frequent, iritis uncommon, and optic neuritis rare. A rather common complication is a suppurative inflammation of the middle ear, followed in an unusual proportion of cases, especially during the winter of 1899-1900, by mastoiditis. In one case the symptoms were so violent and threatening that operation was imperative at the end of forty-eight hours from its inception, and the whole mastoid process was found to be infiltrated with pus. The fever, which at the time of operation was 105.6° F., subsided very gradually, not reaching the normal until two weeks after the surgical interference. Vertigo, sometimes very persistent, and occasionally due to labyrinthine disease, is not infrequently observed. Herpes labialis is very common. Sometime a diffuse erythema, and possibly purpuric spots, are witnessed.

With reference to the diagnosis, it is desirable that in doubtful or suspected sporadic cases a bacteriological examination of the bronchial or nasal secretions should be made in order to find PFEIFFER'S bacillus, which, if present, will declare the disease influenza. This examination is not easy, and is reliable only when made by an expert. During the existence of an epidemic there is usually no difficulty in making a diagnosis, nor in a sporadic case if the symptoms range themselves under the head of one of the recognized types. The cardinal symptom is the excessive and disproportionate weakness. The disease may require differentiation from the following:—

1. *Typhoid Fever*.—Influenza begins suddenly and lacks the regular temperature curve, rose spots, and positive WIDAL reaction of typhoid fever.

2. *Cerebrospinal Meningitis*.—In certain cases of influenza the sudden onset, headache, backache, delirium, and muscular stiffness may afford a clinical picture exactly like that of cerebrospinal meningitis, and the differential diagnosis must depend upon the bacteriological examination; in the one case for the PFEIFFER bacillus, in the other for the meningococcus.

3. *Bronchopneumonia*.—If the question arises as to whether a given case of bronchopneumonia is of influenza

origin, a rather peculiar and anomalous combination of physical signs may answer the question in the affirmative, viz., varying degrees of dulness over both chests posteriorly, with weak respiratory murmur, impaired transmission of voice sounds, and a shower of fine and subcrepitant râles at the end of a deep inspiration, heard in scattered areas or patches, especially at the bases. The combination is probably indicative of a mixture of bronchopneumonic spots and collapsed lobules.

As to prognosis, recovery occurs in the large majority of cases. The mortality varies from $\frac{1}{2}$ to 2 per cent., and is generally due to a complicating severe pneumonia, especially when affecting the very young or the aged.

VAGINAL HYSTERECTOMY FOR CANCER: ITS LIMITATIONS AND RESULTS.

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It might be thought that the time had gone by in which it was necessary or desirable to report cases of vaginal hysterectomy, to mention the limitations of the operation, to describe methods, and to register results, both immediate and remote. It might be supposed that such efforts were simple anachronisms, were it not for the startling pronouncement of a distinguished surgeon that he is of opinion that vaginal hysterectomy for malignant disease is a most unsatisfactory operation, carrying a heavy percentage of deaths as its immediate result, and as its remote result recurrence usually within three months. If surgeons of position and experience write and teach thus, it is the duty of every surgeon to put on record the exact results of the operation in his or her hands.

The following analysis is based on 46 consecutive cases of vaginal hysterectomy, of which 35 were for malignant disease, eight for fibroids, two for procidentia, and one for suppurating involving the uterus and left broad ligament in a woman in whom both sets of appendages had been removed a year before for gonorrhoeal pyosalpinx. The 11 non-malignant cases recovered, and are in satisfactory health at the present time.

The diagnosis of malignancy in the present set of 35 cases was based on the clinical history, signs, and symptoms verified by a microscopic examination conducted by a competent pathologist. In nine of the malignant cases the cervix appeared to be healthy, the disease affecting the body only of the uterus. This proportion, rather more than 25 per cent., is in excess of the usually accepted ratio, but no doubt as the importance of dilatation and curettage in cases of menorrhagia and metrorrhagia is increasingly realised, the teaching on this subject will be modified. Two of the nine cases of malignant disease of the body were cases of sarcoma; in none of the 35 was sarcoma noted affecting the cervix only.

The Limitations of the Operation.—Probably the one fact that does most to discredit vaginal hysterectomy for cancer is that an attempt is often made to operate on cases in which (1) the disease has spread beyond the uterus locally; or (2) the disease has already infected the lumbar, iliac, and other glands; (3) or distant organs, such as the lungs or the liver, are also the seats

of malignant disease; (4) or, lastly, some other grave constitutional state exists, such as diabetes or Bright's disease.

If the operator does not carefully avoid such cases, the immediate death-rate will rise, and the ultimate results will be equally unsatisfactory. It is absolutely necessary for us to remember that our duty to our patients, to ourselves, and to the operation demands attention to these and to other such limitations, and that brilliant operating is not identical with good surgery.

In the present series of 35 cases, four proved fatal within a month of the operation, one died of kidney disease, one of shock after a long and difficult operation, and two of sepsis. It is easy to be wise after the event, but probably the one who had chronic interstitial nephritis should not have been submitted to operation, and in one of the other cases circumstances existed which rendered the operation unusually difficult.

Methods of Operating.—An earnest attempt has always been made to render the vulva and vagina surgically clean, the uterus has been well exposed with lateral retractors and drawn down by volsella, the mucous membrane circumcised at the vaginal junction and the bladder stripped up from the cervix until the peritoneal reflexion was recognised. From this point the operations varied: sometimes it was easier and better to open the pouch of DOUGLAS next, sometimes the anterior fold. Having freed the uterus from all but its lateral connections, and having packed DOUGLAS'S pouch with iodoform gauze to act as a temporary protection to the intestines, it is necessary to ligature or to clamp the broad ligaments.

Of the first six cases now presented four were clamped, and of those four, two were fatal, and the other two fatal cases were also clamped; in one of them (No. 30 on the list) the fatal result appeared to be due to necrosis spreading from the clamped tissues which caused sepsis and secondary hæmorrhage on the sixteenth day. This is probably not a mere coincidence, but may be due in part to the unusual difficulty of the operation which made the use of clamps seem necessary, and in part to want of skill, as clamps have been used once only in cases 12 to 46. In the great majority of the cases operated on for malignant disease, the ovaries and tubes were also removed, but in only two cases was there any evident involvement.

Immediate Results of the Operation.—Of the whole 46 cases, four proved fatal within a month; they were all cases of carcinoma.

Case II.—Mrs. D., aged 40, carcinoma cervicis uteri; operation difficult; time, two hours; broad ligaments clamped. Died of shock.

Case III.—Mrs. W., aged 48, carcinoma cervicis uteri; operation easy; time 40 minutes; broad ligaments clamped. Died of kidney disease.

Case XIII.—Mrs. B., aged 64, sent from country with diagnosis of probably early carcinoma. External surface of cervix healthy; advanced carcinoma of body of uterus. Pouch of DOUGLAS obliterated by strong fibrous adhesions, which involved the whole posterior surface of the uterus. The operation was extremely difficult, lasting 2½ hours. The broad ligaments were clamped. Patient died of sepsis on the third day.

Case XXX.—Mrs. R., aged 42, carcinoma of cervix uteri advanced, but uterus moveable. Operation 1 hour and 20 minutes; clamps used. Patient died at the end of a week. In this case necrosis appeared to spread into the tissues beyond the grasp of the clamps. Secondary hæmorrhage occurred, and the patient died of sepsis at the end of a week.

I have ventured to narrate these four cases as illustrating the limitations to which the rightful performance of the operation is subject. Granting that two of them were suitable for operation, the other two were not (the kidney case and the adherent case), and immediately the mortality is altered from 8 per cent. to 4 per cent.

The ultimate result in these cases of malignant disease is equally important, and bears a favourable comparison with other operations for malignant disease, and with the course of the illness if left unchecked.

All the patients have been written to, or seen, with the following results: One patient was well seven years after; one patient was well six years after; three patients were well five years after; four patients were well four years after; five patients were well three years after. Out of the 35 patients 17 are now alive, and without recurrence. The most recent of these was operated on a year ago, and the earliest of them in 1893. The percentage of known recurrences within three years after operation is 7.1 per cent.

The lessons to be learnt from this, and from any similar record, are obvious. Among the chief are:—

1. It is very well worth while to operate on cases of malignant disease of the uterus if the case comes to hand while the uterus is still freely moveable, and there is no obvious extension of the disease beyond this organ.

The disease is commonest about 45 to 50, the average age of the patients now under report being 47—a time when the woman ought to be most valuable to the community.

2. That it is not worth while to operate unless the whole disease can be removed, and the patient has no other mortal disease.

The immediate percentage of death in properly-selected cases should not much exceed five, and it may reasonably be hoped that it may be still further reduced; but the immediate percentage in unsuitable cases will always remain high—(a) from unduly prolonged operation causing shock; (b) from undue bruising and injuries to tissues predisposing to sepsis, and sometimes to secondary hæmorrhage; (c) also from the necessity of using clamps where ligatures cannot be applied.

3. That the responsibility in this matter lies between the general practitioner and the specialist. The family doctor to whom the patient usually first complains should not be contented with ordering ergot, rest, and change of air, but should insist on examining every patient who has profuse or irregular uterine hæmorrhage. Anyone who has a large practice among women, and still more the overworked out-patient official, knows the temptation to listen to a patient's objections and to postpone examination; but, as a matter of conscience, the examination must be made, and if sufficient information cannot be thus obtained, the further aid of the dilator, the curette, and the microscope must be invoked.

Until the idea of "change of life" is eradicated, many valuable lives will be sacrificed. The teachers of gynecology must not be weary in teaching students, nurses, and patients that all hæmorrhage, irregular in time or in quantity, is abnormal and needs treatment, not always operative. Thus gradually there will be an education of public opinion, both lay and professional, and we shall no longer find that the majority of cases of uterine cancer are sent for operation long after all hope is passed, when interference only hastens the inevitable end.

A MIRROR OF PRACTICE.

CHRONIC GONORRHEAL CYSTITIS: UNUSUAL COPIOUS MUCOPURULENT DISCHARGE FROM URETHRA AND BLADDER: CURED BY VESICAL LAVAGE.

BY JAMES R. WALLACE, M.D., F.R.C.S.I.,
Surgeon to the Home Hospital, Calcutta.

MR.—, a Jewish gentleman, aged 30, was admitted into the Home Hospital on the 12th December 1898, suffering from gonorrhœa and gonorrhœal cystitis. He was of middle height, very corpulent, weighing 17 stone. He was in affluent circumstances, of fairly active habits, abstemious, and of good bodily health. He contracted gonorrhœa in a hill station four months before he was admitted into hospital, and was treated by the Civil Surgeon with sandal oil capsules and an injection of permanganate of potash. The disease was apparently virulent, as he suffered considerable pain, with great inflammatory œdema of the prepuce and glans, accompanied by painful enlargement of both inguinal lymphatics and persistent fever, which confined him to his bed for a fortnight. Finding that the acute symptoms were subsiding at the end of this time, his medical attendant endeavoured to stop the very profuse urethral discharge by passing a full-sized catheter through the urinary canal. Within 24 hours febrile disturbance set in, with severe pain in the hypogastrium, and this was attended with a marked discoloration of the urine, which was voided with intense pain. The urethral discharge literally poured from him, and the urine in a day or two became milky-coloured, with a deposit of shreds of mucopurulent matter stained with blood. He was again confined to his bed, and for four weeks, morning and evening, his bladder was washed out with a solution of permanganate of potash. It is remarkable that no improvement followed this line of treatment, though it was persevered with for three weeks. Lavage of the bladder with simple boiled water was now resorted to, and as the patient had lost flesh and was much debilitated, he was given tonics and wines. In a week all pain and febrile symptoms passed off, but a copious discharge from the urethra continued, and the urine, though very free, was charged highly with mucopurulent matter.

Finding that his condition did not improve, he came to Calcutta, and after consulting two other medical men with some relief, he was admitted into the Home Hospital. The discharge was examined under the microscope, and was found to contain gonococci and pus cells in abundance. The bladder was now daily washed out with a warm sterilised solution of boric acid (3 drams being dissolved in an equal quantity of glycerine with a pint of warm sterilised water at 98 degrees). The relief was both marked and immediate. In four days the discharge had almost ceased, and while gonococci were still found in it, the dysuria had completely ceased on the fifteenth day. All signs of discharge had also disappeared, and though the patient felt quite well, he desired that the lavage should be continued for another fortnight. This was done, and he was discharged from hospital on the 12th of January.

Remarks.—The points worthy of interest in this case are: (1) The danger of using a bougie in the early stage of gonorrhœa, and the still greater danger of using a hollow catheter, which is all the more certain of conveying infection to the bladder. (2) The unusual copiousness of the mucopurulent gonorrhœal discharge. (3) The very beneficial effect of lavage with a sterilised solution of boric acid in gonorrhœal cystitis.

A CASE OF LARGE OVARIAN CYST.*

BY ASSISTANT SURGEON T. H. AQUINO, L. M. S.,

Acting Civil Surgeon, Sukkur, Gadag Dispensary, India.

THE following case of ovarian tumour has many parallels with the one reported in the *British Medical Journal* of July 14th, 1900, by Dr. F. A. BALDWIN, of Manchester :—

B. C., a Hindu, aged about 40, was admitted on January 24th, 1895, for an enormous tumour of the abdomen.

History.—She was a mother of several children, the first being born when she was about 13 or 14 years of age. She had been a widow for fifteen years. The labours were said to have been natural: menstruation had also been regular up to about three years before admission, when it first became irregular for a year or so, and then ceased altogether. The general health was said to have been always good. The tumour was first noticed by the patient about five years before admission, but as its growth was slow and painless, it must have existed for some time before it made its presence felt. In consequence of the inordinate size which the tumour had attained, the patient was quite unable to walk or even to stand. In the sitting position, which was the only one she could assume, she had to use the arms as props to the body, and bend the legs for further support. She was unable to lie down, and had to be propped up in bed to enable her to have some rest and sleep.

Condition on Admission.—The face looked small, with hollow cheeks and sunken eyes; the arms were as thin as sticks, the chest wasted, the legs somewhat oedematous, especially the right, the thighs thin. The abdomen was uniformly enlarged and quite dull all over on percussion; the veins over it were dilated and prominent: the circumference at the level of the umbilicus was 5 feet 7½ inches (the height of the woman was about 4 feet 8 inches). The urine had to be drawn off. The bowels were costive.

Treatment.—The tumour was tapped on the evening of January 25th, 1895, and 40½ pints of fluid were evacuated: the operation was repeated next morning, when 35½ pints more were removed. The abdomen, however, still contained a considerable amount of fluid, probably quite as much as, if not more than, was drawn off. The fluid was characteristic of ovarian dropsy; it was thick, viscid, of a dark-brown colour, specific gravity 1018, neutral in reaction, and highly albuminous. The patient felt somewhat relieved after the operation, and did well for a couple of days. Fever then set in, with a feeling of chilliness that was often repeated. She remained in this state for some days, the chilliness never amounting to rigors, and the fever never rising higher than 103°F. After these symptoms had passed off, the abdomen, which had filled again to almost its former size, was once more tapped. After the tapping the patient had a repetition of the chills and fever, and soon began to lose what little strength and flesh she had remaining, and died from sheer exhaustion on March 1st, 1895.

Necropsy.—The tumour filled the entire abdominal cavity. It arose by a short, broad pedicle from the right upper corner and side of the uterus, and was extensively adherent to the abdominal wall on the right side, and to the omentum, liver, and spleen. The inner surface of the cyst, which was unilocular, was inflamed, and presented a rough, uneven surface; it was, in fact, an immense pyogenic membrane. The contents of the cyst consisted of a dirty yellowish fluid, very foetid, with thick flakes of lymph floating in it. Arising from the anterior and middle surface of the cyst wall, inside were five tumours situated side by side, but quite distinct from one another. One of these, the largest, was roundish in form, and measured 4½ inches in length and 3½ inches in breadth; roughly, its size was that of a closed fist; two were of the shape and size of a kidney, and two were more or less round, and of the size of a lemon. These tumours, on section, were found to contain loculi which were filled with a pale-yellow, jelly-like fluid, mixed with some purulent matter. The intestines were flat, narrow, and tape-like; they were displaced to the left side and pressed against the spine. The diaphragm on the right side was very much vaulted, and reached as high as the third rib; on the left side as high as the fourth rib. The lungs were small, but healthy-looking. The apices were forced up into the supraclavicular regions. The weight of the right lung was 7½ ozs., of the left 5½ ozs.; the heart was also small and displaced upwards and to the right, but its tissues, valves, and orifices were normal; weight 4½ ozs. The right ureter was dilated and full of urine; its diameter was about 1½ in.; the left ureter was normal; the kidneys also appeared normal, and weighed about 3 ozs. each. The spleen was adherent to the cyst wall, but normal in structure; weight 6½ ozs. The liver was displaced upwards as high as the third rib; it had almost a globular shape, with its under surface hollow and cupped; weight 2 lbs. ½ oz. Uterus normal in shape, size, and position; left ovary, fallopian tube, and ligaments normal; the same structures on the right side were obliterated or absorbed in the sac. The rectum and vagina were normal; the cyst wall was very thick, and weighed, together with the five colloid tumours arising from it, mentioned above, 5 lbs. 4 ozs. It was sent to the Grant Medical College Pathological Museum, where it is preserved.

The repeated chills and the persistent low fever seemed to indicate inflammation of the sac as the result of tapping, and the necropsy confirmed this supposition. The operation had to be undertaken as a matter of necessity, in order to relieve the tension and other symptoms caused by the enormous amount of fluid, about 14 or 15 gallons, present in the abdomen. Ovariectomy in this case seemed to be quite out of the question.

A CASE OF ABDOMINAL GESTATION: DEATH.

BY M. N. GOVINDEN NAIR, C.M.S.,

Medical Officer, L. F. Dispensary, Badvel, Cuddapah District.

THAT dreadful complication of human conception, viz., extra-uterine gestation, is fortunately such a rare occurrence that I need hardly apologise for submitting for

* Reports on Medical and Surgical Practice in the Hospitals and Asylums of the British Empire.

publication the notes of a case which I had the misfortune to have had under my observation lately.

LINGAMAH, a married woman of the labouring class, who had had five safe deliveries previously, was brought to the Local Fund Dispensary at Badvel on the 9th December 1900, at 3 P. M., for confinement from a village 20 miles off. The history was that the woman was in full term of her pregnancy (which was verified by subsequent observation), and that she was seized with a sudden pain in the abdomen four days previously, followed by discharge of a thick fluid *per vaginam*. The pain never appeared again, and no progress being noticed in the labour, and the strength gradually failing, she was brought to the dispensary.

On arrival she was found in a moribund state. She was unconscious; the temperature was 100° F.; the body was covered with a moist, clammy sweat; the pulse was small and thready; the eyes not responding to touch, and there was a very offensive smell about her. An examination *per vaginam* was, however, made, but no parts of the fœtus could be felt even after the most careful examination, whereas it could be distinctly felt under the disturbed skin and muscles of the abdomen, which gave me the idea that the case might be one of abdominal gestation. The fœtus was motionless, and evidently dead. The condition and circumstances of the case were such as to preclude any operative interference. The end, though momentarily expected, did not come until 2 o'clock next day, when she expired quietly of exhaustion.

Cutting a dead body is generally opposed to the native sentiment, but in a case like this, fortunately, there is an exception based on the superstitious belief that a woman dying with a fœtus in the womb has no salvation. I had therefore no difficulty whatever in inducing the relatives of the deceased woman to agree to a *post-mortem* examination.

On opening the abdomen about a pint of dark putrid fluid escaped, and a fully developed male fœtus was exposed in a thin, black, gangrenous membrane which had ruptured. The fœtus was also found to be in an advanced state of decomposition, with large blue bullies all over the body. The attitude of the fœtus was exactly the same as in a case of normal uterine gestation. The placenta was small and thin, being only a third of the size of a normal organ, and it was in a state of decomposition too. It was found lying detached in the space between the uterus and the bladder. The cord was about one foot long. The bladder was very much thickened with large distended veins. The uterus had also undergone some changes. It was enlarged, being about 10 inches long and 6 inches broad, with the wall about half an inch thick. The mucous membrane was hypertrophied and vascular. In the anterior wall of the cervix there was a hole a little bigger than a rupee in size, which seems to have been the result of inflammation and ulceration, caused by the constant pressure of the head. There was nothing unusual about the fallopian tubes or ovaries, except that they were also somewhat enlarged.

Of the causes of the deviation in the natural progress of the impregnated ovum, nothing is definitely known, and I must own that my observations in this case cannot make such knowledge any the better. Opinion is divided as to the chances of an extra-uterine gestation going to the full term. Some authors are of opinion that full term is reached in a large majority of cases, all varieties considered; while others believe that chances of rupture of the cyst increase with every succeeding month. The case under notice will be found interesting as one which has gone on to full term with a fully developed fœtus, and as having induced typical changes in the womb in the shape of enlargement and development of the mucous membrane into what looked like decidua.

A CASE OF TRAUMATIC EPILEPSY CURED BY OPERATION.

BY JAMES ARMOTT, M.D.,

Deputy Medical Officer, Workhouse Infirmary, Brampton, Cumberland.

THE following case is perhaps worthy of record, partly on account of the number and severity of the convulsions and their immediate relief by operation, and partly also from the rather unusual condition of the skull found at the seat of injury:—

The patient, T. N., single, 27 years of age, a mason, was admitted to the Workhouse Infirmary on December 16th, 1899, having been found unconscious by the police.

Previous History.—Two and-a-half years previously he fell from a scaffold about 20 feet on his head, and evidently sustained a fracture of the skull. Six months later fits began to make their appearance, and have continued ever since. Slight at first, they have increased steadily in severity. There has been, in addition, constant headache since the accident.

Condition on Admission.—Since admission he has had from twenty to twenty-five fits every day. During the intervals he lies in a dazed semi-conscious condition. On the left side of the skull, corresponding almost exactly with the position of the parietal eminence, there is a depression about 1½ inch in diameter, over which there is hyperæsthesia, but no pulsation. Slight pressure in this situation at once causes a fit. There is paresis of the right arm and leg. On examination of the right fundus, there is seen to be well-marked optic neuritis. The patient speaks with difficulty. The temperature is normal and the pulse 62.

Operation.—On December 22nd, 1899, the head being shaved, I turned down a large semi-lunar flap of scalp. On laying bare the depression, it was found to be entirely devoid of bone, the periosteum and dura mater being apparently welded into one. This was firmly adherent to the brain, and on removing it thick prolongations were seen dipping in between the convolutions. These were taken away, leaving the brain pulsating freely. The flap was then replaced, stitched, and dressed antiseptically. Just before being put on the table the patient had a severe fit. The next day he said he "felt quite different." He had had no headache or fits. The grip of the right hand was much stronger, the temperature normal, the pulse 80. The wound, when dressed four days later, was found to be completely healed.

I saw the patient on December 3rd, twelve months after the operation. He tells me he has never had a headache or a fit since. His right arm and leg are quite strong, and the optic neuritis has disappeared. He is, in fact, perfectly well.

Indian Medical Record.

13th February 1901.

RELATIONSHIP BETWEEN AFFECTIONS OF THE FEMALE GENITALIA AND NEUROSES AND INSANITY.

IN a paper contributed to the *Edinburgh Medical Journal*, Dr. H. MACNAUGHTON JONES, M.D., M.CH., M.A.O., F.R.C.S.E. & L., discusses at some length the subject of "Affections of the Female Genitalia as Causal Factors in the Etiology of Neuroses and Insanity and their special bearing on the Operative Treatment of the Insane." We can afford space only for the essentials of this valuable contribution. The following are shortly the conclusions at which the writer arrives: (1) Where, in an insane person, ovulation and its external manifestation, the menstrual discharge, are absent or erratic, the erraticism or absence may be a consequence of the general and insane condition, and not a causal factor in its production; but under any circumstances such abnormal menstruation appears to have an aggravating effect on the insanity, and there is sufficient evidence to strengthen the belief that when such irregularity exists—especially if it be due to a pathological cause—it should be treated therapeutically or by operative measures. (2) The question of a gynecological examination of an insane woman must be a matter for the discretion of the psychologist, influenced by the gynecological view as to its expediency from the signs and symptoms present in the sexual organs. For many reasons as a *universal* practice it was not warrantable. (3) Sufficient evidence was now advanced to justify the removal of the adnexa or tumours of the uterus in insane women when there were gross lesions of the former or tumours of the latter. Here, again, such operations must be advised according to the psychological condition of the patient and the type of her insanity. (4) From a mass of evidence, it did not appear that there is in healthfully minded women, who suffer from diseases of the genitalia, any special risk of post-operative insanity. On the other hand, if there be a psychopathic predisposition, which has existed prior to, and independently of, the sexual disease, there is in such cases a larger percentage of post-operative mental disturbance than follows other operations. In such women the prudence of a radical operation may have to be carefully discussed. The post-operative mental effect did not appear generally to be of a serious or permanent nature. (5) It may be generally affirmed that when mental disease of a graver type follows upon sexual disorder, there has been in the woman affected an underlying and often unrecognised psychopathic predisposition: the disorder of menstruation or the disease in the genitalia completing the chain of the vicious circle needful for the final manifestation of the mental condition. (6) The relation of aberrant sexual function or a disorder of menstruation to any criminal act ought to be taken into consideration in determining the responsibility of the woman.

The practical effect of this communication might be summed up in three questions formulated by the writer, and the replies thereto:—

A. What are the indications for a gynecological examination of women who are suffering from any form of mental aberration, and under what circumstances is such examination of an insane woman expedient and justifiable? Dr. ROBERT BARNES had advocated the elimination by examination, if necessary, of the presence of any sexual disorder in a woman before confining her to an asylum. This was a rational conclusion. It did not necessarily involve an internal examination of the genitalia, for an inquiry into the past history of the patient, together with the circumstances under which the first evidences of alienation appeared, would generally exclude the possibility of there being any interference with the discharge of the functions of the sexual organs. Such an inquiry would also assist in arriving at a conclusion that symptoms of mental disturbance preceded any interferences of function, or *vice versa*. Such a careful investigation giving negative results would influence against the necessity for proceeding further. Also, obviously, in a fair proportion of cases, there would be a knowledge of other causes predisposing to and producing insanity. For instance, the frequently occurring one of heart disease as a physical, and disappointment in love affairs or mental worry as a psychical cause. Or, again, the habit of masturbation might be verified. Such careful inquiry would also elicit the proofs, both by symptoms and signs of previous pelvic disease, whether in the uterus, adnexa or external genitalia. Should this exist, there was a clear indication for the determination of the extent and nature of the disease, and its probable effect on the mental condition. The age of the patient and her state, whether married or single, would also influence. The disorders of menstruation, so frequent during the years of adolescence, had commonly no local pathological explanation. The causes of these were, however, often congenital. A persistent dysmenorrhœa, menorrhagia or metrorrhagia would certainly indicate the need for examination as would a suspicion that the womb was retroverted. Permanent non-appearance of the menses would arouse suspicion of atresia of either uterus or vagina, and the possibility of partial or complete absence of the genitalia had to be recollected. In married women there was not the same reluctance to examination; the causes of disorders of menstruation were more likely to be pathological, and consequently the indications for examination were generally more obvious. During middle life also there were all the parturient and puerperal sources of insanity requiring investigation. At the advent of and during the menopause, should any striking deviation from the natural course of cessation of menstruation precede or accompany the insanity, an examination should be made for the same reason that it was advised in ordinary cases, namely, to escape the error of overlooking any serious pathological condition of the adnexa and uterus. That being so in the case of the sane woman, it was even more so in the case of the insane, where there was the additional reason of the mental condition being attributable to any disease that might be present.

B. Is operative interference in cases of pathological changes in the genitalia of insane women justifiable, and under what circumstances? All the evidence gathered from the most eminent sources showed that such interference was called for (1) when, on weighing the etiological factors in the causation of any particular case, they point to a causal relationship between the sexual disorder and the disturbance of mentalization; (2) when observation of the patient shows that the pelvic disorder aggravates the insanity by intensifying delusions, directing the mind morbidly to the sexual organs, increasing the severity of periodical outbursts, or by the influence on the physical well-being, preventing improvement of the mental state. It was for the psychologist to decide the most favourable time for operation and the contraindication that may be presented by the phase and type of the insanity.

C. Do operations on the female genitalia specially predispose to post-operative insanity, and do operations on the genitalia of insane women tend to aggravate the mental symptoms? The writer shows from the opinions of the most eminent authorities that in a healthy woman there was never any disturbance after an operation: there was always "some predisposition." The writer had never personally seen any injurious mental consequence follow a gynaecological operation in a healthy woman: in only two of his cases, in whom symptoms of insanity appeared, one had previously been in an asylum, and the other, an official in a private one, had been a typical neurasthenic for some years. And it certainly did not appear from the published records of operations performed on the insane that the symptoms had been thereby aggravated, save in very few instances, and in these the effect did not appear to have been permanent. Dr. MACNAUGHTON JONES hoped that by the collaboration of those psychologists in charge of large public asylums and private institutions with experienced gynaecologists, aided by the intelligent assistance of those who have had the previous charge of patients admitted into these institutions, more certain and reliable data would be arrived at, and thereby treatment of the female insane would be less empirical, and less hampered by routine, than at present. The desirability of the triple concert of the patient's physician with the expert psychologist and gynaecologist, in order to arrive at more complete conclusions—clinical, physiological and pathological—had been insisted on by so distinguished an authority as Professor HEGAR, who had said "with such a large supply of material as was found in our great insane asylums, valuable results might confidently be looked for."

ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR THE YEAR 1899.

II.

THE EUROPEAN ARMY OF INDIA.

The above Report says:—

"The health of the European army of India was much better in 1899 than in 1898," and again it "was much better in 1898 than in 1897." From this it appears that the sickness amongst European troops has steadily

diminished during the last two years, and that the healthiness of the year 1899 was quite exceptional, if indeed not phenomenal.

A glance at some of the figures seem to bear out this view.

The admission-rate, that is, the number of admissions to hospital per thousand of the total strength, was 1,148.7. There were 1,148.7 admissions for every thousand men serving in India. Large as this number appears, it is small compared with other years. In fact it is the smallest since 1870, the furthest back we are able to refer to. The nearest to it was 1877, with an admission-rate of 1,257.3.

The admission-rate for venereal diseases was 313.4, the smallest since 1884, when it was 293.9; the highest figure in the meantime was 522.3 in 1895.

The admission-rate for enteric fever was 20.6, the lowest figure since 1893, when it was exactly 20; the highest figure in the intervening period having been 36.9 in 1898. The year 1899 is, in fact, remarkable, in as far as enteric fever is concerned, for it marks the first check to the steady rise which began in 1894 and has been an annual event ever since.

CAUSE OF THE UNUSUAL HEALTHINESS OF 1899.

It seems a for cry to go to South Africa to get an explanation for the unusual healthiness of the year 1899; yet it was indirectly due to the war in South Africa.

It is a well-established fact that young soldiers are more liable to disease than old soldiers. This fact extends not only, as is too often supposed, to enteric fever, but universally to all diseases; and not only to tropical climates, but to all climates.

The question has been carefully worked out in the statistics of the French army, and we recently published the figures showing that soldiers under one year's service are almost twice as liable to all diseases as soldiers of over one year of service.

It is to the absence of the young soldier, owing to the excessive demands made by the South African war, that the unusual healthiness of the year 1899 must be chiefly attributed.

The strength of the European army did not differ much from the strength of the previous year—67,697 against 67,741. But the number of men who arrived in the country, mostly of course young soldiers, was only 3,369, against 16,911 in 1898. The smallness of this figure has no equal since 1870, the earliest year to which we can refer. The next smallest number is 7,568 in 1875. So we see that in this respect the year 1899 was altogether exceptional.

If this conclusion is true, the converse must be equally so. We will almost certainly find that when the large number of time-expired men, old soldiers who have been detained beyond their proper time in India, are sent home, and their places taken by an unusually large influx of young soldiers, that there will be a correspondingly large increase in the amount of sickness.

This may be confidently expected in the year 1902.

INVALIDING.

The total number of men invalided in 1899 was 2,142, against 2,580 in 1898. Although this is an improvement on the preceding year, when compared with the average of 10 years, it is by no means satisfactory. Thus in the 10 years, 1889-98, 27.50 men were invalided out of every 1,000, while in 1899 the number was 31.64 per thousand. For reasons that are fairly obvious, the invaliding rate was not affected by the small number of arrivals in the country. In fact the number of men invalided before they had been one year in the country was higher than in 1898—350 against 295; but these must have consisted for the most part of men who came out the preceding year, that is, in 1898.

There can be no doubt that the number of men invalided has shown a decided tendency to increase of late years, and this appears to us an astonishing and disquieting feature, considering the increased facilities that now exist for sending sick and weakly men to the hills.

OF WHAT USE ARE HILL STATIONS IN INDIA.

It may well be asked, how is it that the large number of Hill Sanitaria all over the country have not tended to reduce the number of men annually requiring change to England, or if the best possible use is made of these expensive establishments? Of the large number of men sent home, only 31 per cent. were sent home as unfit for further service! What of the other 69 per cent.? Would not a change to some Indian hill station, in a large number of cases at any rate, have been as beneficial as a change to England? We would like to know what powers the local medical authorities possess for controlling the increasing flood of invaliding, and if such powers as they possess are properly exercised.

Presumably invaliding is no tax upon the purse of the Indian Government, or we might expect to see the present somewhat lavish scale on which it is carried out restricted.

EXCESSIVE SICKNESS.

Amongst the regiments and corps to which special attention is drawn on account of their unhealthiness, we find two that were stationed in the neighbourhood of Calcutta.

The 29th Battery, *sic*, (it should, we believe, be Company) Southern Division, Royal Garrison Artillery, which had the second highest constantly sick-rate was stationed at Barrackpore, while the 1st Battalion, Royal Irish Rifles, which had the fourth highest death-rate, was stationed at Dum-Dum and Calcutta. Barrackpore and Dum-Dum appear to possess an unenviable notoriety in many respects. The most unhealthy corps in the army, however, was the 3rd Hussars at Lucknow, amongst which enteric fever was unusually prevalent; there were 46 admissions and 10 deaths.

ENTERIC FEVER.

As usual a considerable portion of the Report is allotted to the discussion of enteric fever, and the most important recent advances in our knowledge of the subject mentioned.

According to ELLIOTT SMITH, the disease is no longer to be considered as an intestinal disease, but as a modified form of septicaemia. "It is a septicaemia, in that always, and in all cases, the bacilli pass into the blood and then into the various organs, and in that the symptoms, excepting as far as they are intestinal, are referable to the poisons there produced." RANKIN regards "the finding of the bacillus in the stools as the only certain sign of enteric fever."

Again, we read that "there is no proof that the enteric bacillus can multiply outside the body," but "that the bacillus has great powers of resisting the powers of desiccation; remaining alive, it may be, for over a year in the dried condition, it becomes easy to understand how bacilli eliminated from the body may pass into the atmosphere in the form of dust, and cause disease at long periods after every fresh source of infection has been really removed."

From this it may be gathered that the endeavour to find the cause of every case in the water-supply is being given up, and that other sources of infection are about to receive their fair amount of attention.

The inventor of the dust theory is to be congratulated on having discovered a medium that is likely to exhaust the resources of investigators, if not their patience, and to afford a fruitful field for controversy and speculation for years to come.

The opinions of a number of medical officers as to the cause of enteric fever in their stations are given, the variety of different ideas on the subject is as usual considerable, and a number of references are made to various local insanitary conditions.

We gather that the boiling of the drinking water is in many places carried out in such a faulty way, that it is more a source of danger than anything else. It would appear that though the boiling is ordered, no facilities are provided for carrying out the order.

At Jhansi it is reported that no benefit has resulted after 2½ years' trial from the addition of permanganate of potash to the water. At Jullundur, on the other hand, it is mentioned as a cause of the decrease of the disease. The dirtiness of troop trains is alluded to by another medical officer, who thinks that a little more cleanliness would not be misapplied in this direction, and also that pure aerated drinks might be supplied en route.

The various opinions are at least interesting, and show that medical officers study the question of causation as far as their means go; indeed some appear to be possessed of an unbridled enthusiasm which rather oversteps the mark, and tends to degenerate into a sort of monomania. This would be harmless if its effects fell only on the individual. But when we read that one medical officer alone sent for analysis to Professor E. H. HANKIN, Chemical Examiner and Bacteriologist, N.-W. Provinces and Oudh and Central Provinces, 311 specimens of water, 52 specimens of earth collected in or near the commonest filth pits, 22 bottles containing flies, caught at weekly intervals in cook houses and latrines, and 12 samples of water in which regimental cooks and sweepers had washed their hands, we cannot help wondering what would be the fate of the overworked Professor if every medical officer's demands on his time were of a similar scale!

BACTERIOLOGICAL WORK.

This part of the Report contains some interesting sanitary reports and results of bacteriological investigations carried out by officers of the R. A. M. C. specially appointed for the work.

The investigations of one of these officers extended from Umballa to Bangalore, and from Aden to Suwebo in Burma; so that his post cannot be said to be a sinecure. In bacteriological work, however, the Government of India, as is well known, is a Shylock, who expects more than his pound of flesh.

MALTA FEVER.

Only one case of this disease found its way into the returns. In view of the frequent allusions that have been made to this disease in the lay papers, it is interesting to note that the Sanitary Commissioner advises caution in accepting these cases as genuine.

COMMENTS AND NEWS.

THE LAST ILLNESS OF QUEEN VICTORIA.

THE *British Medical Journal* says:—We are enabled to publish the following authoritative account of the last illness of Queen VICTORIA:—

The Queen's health for the past twelve months had been failing, with symptoms mainly of a dyspeptic kind, accompanied by impaired general nutrition, periods of insomnia, and later by occasional slight and transitory attacks of aphasia, the latter suggesting that the cerebral vessels had become damaged, although Her Majesty's general arterial system showed remarkably few signs of age.

The constant brain work through a long life of Royal responsibilities, and the Imperial events, domestic sorrows and anxieties which have crowded into later years, may no doubt be held in some measure to account for this discrepancy between the cerebral and general vessel nutrition. The thoracic and abdominal organs showed no sign of disease.

The dyspepsia, which tended to lower Her Majesty's originally robust constitution was especially marked during her last visit to Balmoral. It was there that the Queen first manifested distinct symptoms of brain fatigue and lost notably in weight.

These symptoms continued at Windsor, where, in November and December 1900, slight aphasic symptoms were first observed, always of an ephemeral kind, and unattended by any motor paralysis.

Although it was judged best to continue the negotiations for Her Majesty's proposed visit to the Continent in the spring, it was distinctly recognised by her physicians, and by those in closest personal attendance upon her, that these arrangements were purely provisional, it being particularly desired not to discourage Her Majesty in regard to her own health by suggesting doubts as to the feasibility of the change abroad to which she had been looking forward.

The Queen suffered unusual fatigue from the journey to Osborne on December 18th, showing symptoms of nervous agitation and restlessness which lasted for two days. Her Majesty afterwards improved for a time, both in appetite and nerve tone, in response to more complete quietude than she had hitherto consented to observe.

A few days before the final illness, transient but recurring symptoms of apathy and somnolence, with aphasic indications and increasing feebleness, gave great uneasiness to her physician.

On Wednesday, January 16th, the Queen showed symptoms of cerebral exhaustion. By an effort of will, however, Her Majesty would for a time, as it were, command her brain to work, and the visitor of a few minutes would fail to observe the signs of cerebral exhaustion.

On Thursday these symptoms were more marked with considerable drowsiness, and a slight flattening was observed on the right side of the face. From this time the aphasia and facial paresis, although incomplete, were permanent.

On Friday the Queen was a little brighter, but on Saturday evening there was a relapse of the graver symptoms, which, with semicomas, continued until the end. It is important to note that, notwithstanding the great bodily weakness and cere-

bral exhaustion, the heart's action was steadily maintained to the last, the pulse at times evincing increased tension, but being always regular and of normal frequency.

The temperature was normal throughout. In the last few hours of life paresis of the pulmonary nerves set in, the heart beating steadily to the end.

Beyond the slight right facial flattening there was never any motor paralysis, and except for the occasional lapses mentioned, the mind cannot be said to have been clouded. Within a few minutes of death the Queen recognised the several members of her family.

THE MEDICAL DEPARTMENT OF THE QUEEN'S HOUSEHOLD.

THE medical department of Her Majesty's household in England at the time of her death was as follows:—

Physicians in Ordinary: Sir Edward Henry Sieveking, M.D.; Sir James Reid, Bart., K.C.B., M.D.; Sir Richard Douglas Powell, Bart., M.D. *Physicians Extraordinary*: Sir Alfred Baring Garrod, M.D., F.R.S.; Sir Samuel Wilks, Bart., M.D., F.R.S.; Sir William Henry Broadbent, Bart., M.D.; J. E. Pollock, M.D.; Sir Thomas Barlow, Bart., M.D. *Sergeant Surgeon*: Lord Lister, F.R.S. *Surgeons Extraordinary*: Sir T. Smith, Bart., F.R.C.S.; T. Bryant, F.R.C.S.; F. Treves, F.R.C.S. *Physician to Household*: Sir T. Barlow, Bart., M.D. *Surgeon to Household*: Rickman J. Godlee, F.R.C.S. *Surgeon Apothecary to Her Majesty and Apothecary to the Household*: Sir Francis Henry Laking, K.C.V.O., M.D. *Surgeons and Apothecaries in Ordinary to the Household at Windsor*: William Fairbank and W. A. Ellison, M.D. *Ditto at Osborne*: William Hoffmeister, M.D., and H. E. W. Hoffmeister, M.B. *Surgeon-Oculist*: George Lawson, F.R.C.S. *Surgeon-Dentist*: Sir Edwin Saunders, F.R.C.S. *Dentist to the Household*: Edwin T. Truman. *Chemist and Druggist*: Peter Wyatt Squire.

All these offices of course became extinct at the Queen's death.

MORE BAD SURGERY IN THE MEDICAL COLLEGE HOSPITAL.

MAY we ask the Inspector-General of Civil Hospitals, Bengal, why the mortality of the wards under the care of the "Professor" of Surgery is so abnormally high? Will he have the goodness, in the interests of patients in the wards of that officer, to demand a detailed report of the deaths in the surgical wards under Dr. E. D. MURRAY's care? For example, why should a case undergoing an operation for simple hydrocele, die of septicæmia? Why should simple (intracapsular) fracture of the neck of the femur, terminate in death by septicæmia? Why should similar cases of this type be faultily diagnosed? Why should a simple wound of the hand, in these days of successful antiseptic surgery, necessitate amputation at the upper third of the arm, and why should such a case end fatally? These are straight questions. They demand straight answers. But why, we ask again, are human lives being sacrificed for lack of skilful surgery in the Medical College Hospital? Why not admit the folly and the error of putting in the wrong man into the Chair of Surgery and of manufacturing by a gazette process a Surgical "Professor" from badly tempered material? Again, we say, a public inquiry is demanded into the inner working of the Calcutta Medical College Hospital, and we respectfully request that such investigation be now made.

PROFESSIONAL CARDS AND SIGNS.

The *Philadelphia Medical Journal* says:—By the same mail we receive three letters concerning three phases of "professional advertising"—all relating to methods of making known the specialty. The first asks:—

"If a man should advertise in a medical journal that he did clinical microscopy for other doctors at certain rates, would it be ethical, and would it be in good standing?"

We think it highly desirable, as well as absolutely inevitable, that the best professional work should be done by those exceptionally able and fitted to do it. The experts and the specialists under proper professional rules and ideals are pushing forward professional progress not only theoretically, but practically. That they should be paid for their special work goes without saying. In answer to the foregoing question, the answer Yes would seem most clear.

The second inquirer asks if the words "surgery and consultations," or "practice limited to surgery," placed upon his professional cards and the circulation of these cards strictly limited to the profession, would be "professional." The third correspondent writes as follows:—

"Many complaints are made that physicians who limit their practice do not confine themselves to their specialty. It is unfair to the general practitioner that the specialist should attempt to treat a disease that does not pertain to his specialty. For instance, a physician a few months ago sent a patient, who had recently lost the sight of one eye, to an oculist, who made a diagnosis of syphilis. The patient was then sent to his family physician, under whose treatment he completely recovered. As the reputable specialist depends very much on the support of the general practitioner for patients, it is his duty to place himself in such a position that every patient who enters his office will know that he makes a specialty of one thing, and does not pretend to treat anything else. He can do this only by having his specialty on his sign and on his office door. For six years I have had my specialty on my office door, and not more than once a year do I have a patient come to my office for anything that does not pertain to my branch of medicine.

"If every specialist would do this, there would be little opportunity for him to do anything but special work. The general practitioner, also, would feel more like sending his patients where they may see that the physician to whom they are sent limits his practice, and is not simply a physician who knows more about everything than the family physician."

At first sight these arguments seem logical. Upon closer examination we think they are more than neutralized by others. Even in the heart of great cities it is so exceptional for patients to err, *e. g.*, in seeking for the services of an oculist when they wish an obstetrician, that the emphasis of the need for specialist signs or notices may easily be exaggerated. So far as concerns one's professional brethren, even in cities they soon learn the specialty and desires of each as to practice. The doubt as to whether one honorably sticks to his specialty is, or may be, easily cleared up. One of our oldest and most honorable national medical societies makes it an invariable rule not to accept as a member any applicant who, on sign or card, makes known the fact that he is a specialist. We think the rule a wise one. All such methods of advertising are outgrowths of the commercialism of medicine, of looking upon the cure of disease as a business, and of thinking of the patient's ability to pay before determining as to the treatment. Medicine, it cannot

be too often urged, is neither business nor knowledge nor success; nor is it all three combined. All three are more or less necessary but subordinate parts or bases of the professional life, but skill, the cure of disease, *the art of medicine*, is something far different and higher. Can we not keep the old, simple, kindly, personal relations with our patients, and also with our professional brethren? It surely is not necessary to mechanize our calling and harden it after the manner of the world in military and commercial life. Let us continue on our older gentler and human way of quietness and modesty, wherein we need not placard our peculiar abilities. Whatever tends toward, or is in danger of being construed as advertising, does us no good in the long run, and is destructive of the true ideal of the physician. However great the skill or the knowledge, it is our most honorable pride that these qualities should but light us on the way of love and beneficence.

THE FATHER OF MODERN ELECTRICITY.

DR. WILLIAM GILBERD, Queen Elizabeth's physician, is at length to receive honour in his own country. Three hundred years have elapsed since Gilberd laid the foundations of electrical science in his famous work *De Magnete*, published in 1600. It is time that Englishmen should do some honour to the man who was called by Priestley "the father of modern electricity," and by Poggendorff "the Galileo of magnetism." Gilberd was born at Colchester, and received his early education in the Grammar School of his native town. In due course he proceeded to St. John's College, Cambridge. Soon after taking his first degree in 1560 he became a Fellow of his college, where he remained in residence, taking part in its affairs, for ten years. As was said by Mr. Joseph Larmor in his presidential address to the Section of Mathematical and Physical Science at the last meeting of the British Association, all through Gilberd's career, both at Colchester and afterwards in London, where he attained the highest position in his profession, he was an exact and diligent explorer, first of chemical and then of magnetic and electric phenomena. Hallam, in his *History of European Literature*, says of Gilberd: "In his Latin treatise on the magnet he not only collected all the knowledge which others had possessed, but he became at once the father of experimental philosophy in this island." Mr. Larmor adds that no demur would be raised if Hallam's restriction to this country were removed. It is extraordinary that such a man should have so long remained without any public memorial in his own land, and we are pleased to be able to announce that this reproach is about to be removed from us. The medical profession at Colchester—the birth-place and burial-place of Gilberd—have the honour to be the originators of the first proposal to do suitable honour to be the originators of the first proposal to do suitable honour to his memory. At a meeting recently convened by the Mayor of Colchester (Mr. Claude E. Ngerton-Green), and addressed by Dr. Elliston (President of the British Medical Association), Professor Silvanus Thompson, Dr. Fenn, Mr. Henry Laver, Mr. Edgar A. Hunt, and others, it was decided that the medical men of Colchester should be invited to erect a full-length marble statue of Gilberd, to occupy a niche in the main facade of the new Town Hall of the borough. Mr. Henry Laver, F. S. A., was appointed Treasurer to the movement, and has already received promises of subscriptions amounting to £180. The minimum total required for the statue is £150, and it may be hoped that no difficulty will be experienced in raising something more than this, so that the statue may be made worthy of Gilberd and of the profession to which he belonged. Lord Kelvin has, we understand, written, expressing his cordial approval of the proposed memorial.

TRADITIONAL JEALOUSY OF THE CIVIL SERVICE OF INDIA.

AN I. M. S. man, writing to the *British Medical Journal*, says:—The traditional jealousy of the Civil Service of India has once more worked to the serious detriment of the Indian Medical Service. The greatest attraction of the latter is—or more correctly speaking was—the likelihood of lucrative private practice in course of time; but now that the medical colleges in India are turning out so many highly qualified men, practice among the middle class of natives is rapidly becoming a thing of the past, and only men with the highest reputations add materially to their incomes by private practice among the richer natives or rajahs, the fees being few, though sometimes large. The civilian, however, who draws from one to two thousand rupees a month, after a few years' service, grudges to his much less highly paid medical colleague an occasional high fee, and an order has just been issued by the Government of India prohibiting any fee of Rs. 2,000 and over being taken without the express sanction of the Government in each case. Thus a service medical officer cannot take even such a fee as a London consultant would obtain for a few hours' railway journey into the country, even if he was attending a prince many hundred miles from his station, and had lost possibly several days' practice. When the civil authorities find that they have prevented by their short-sighted and dog-in-the-manger policy good men from entering the service and have themselves, together with their families, to depend on a less highly qualified set of doctors than they have hitherto had the advantage of, they will discover their mistake when it is too late to undo the mischief.

THE DEFINITION OF THE WORD "OPERATION."

THE definition of the word "operation" would at first seem sufficiently clear. And yet, when rigidly scrutinized, it is by no means so. A recent medico-legal case brought several errors and indistinctions to attention, and upon collating and classifying the definitions given in a large number of lexicons, we find noteworthy differences and mistakes. All but one or two incorporate one or more errors, and there is one that gathers and endorses all of the five following inaccuracies:—

1. An operation is performed by an authorized surgeon, or by a legalised practitioner of medicine. An instant's attention shows that an operation may be performed by a non-medical person.
2. It is performed by one person upon another who is the patient. But, as we all know, an operation may be performed by and upon oneself.
3. It is performed by means of surgical instruments. Operations, however, are performed every day without instruments.
4. It is manual. But every surgeon knows of operations done without the use of the hands.
5. It is with the object of relieving disease or restoring health. And yet in cosmetic operations, in vaccination, in criminal abortion, and in malingering, the object is not the restoration of health.

In the presence of these criticisms almost the only definition that will undergo testing is the simple one that an operation is a *surgical act* (or *procedure*). The essence of the matter appears to be expressible by one word which no dictionary, so far as we know, has caught. The distinctive difference between all other therapeutic measures and surgical ones resides in the word *mechanic*. This is manifest in the etymology of the word *surgeon*—one who works with

the hand. But though a surgical act may be carried out by other means than the hands, the nature of the procedure is mechanic in contradistinction to other means essentially chemio or physiologic.

OFFICIATING PROFESSOR OF ANATOMY IN CALCUTTA.

MAJOR DAVID MACBETH MOIR, I.M.S., has been appointed to officiate as Professor of Anatomy to the Calcutta Medical College and Surgeon to the College Hospital during the eight months' absence, on leave, of Lieut.-Col. E. HAVELOCK CHARLES, I.M.S., who leaves Calcutta for a tour through Egypt, Europe, and America on the 25th instant. Dr. MOIR is M.B., C.M., Edin., 1885. He passed into the I.M.S. in 1888 second on the list. He held formerly the post of Demonstrator of Anatomy in Edinburgh and obtained a medal from Netley. He has for some years been one of the resident medical officers of the Presidency General Hospital, but he has no record of good surgery. The selection, however, is probably a good one so far as anatomy goes, and let us hope the surgical experiences will not equal in brilliancy (!) the exploits of Dr. R. D. MURRAY, who, by the way, was another "selection" from the former resident staff of the Presidency General Hospital.

SENTENCE OF JAMES ARMSTRONG, THE BOGUS M.D. MAN.

THE *Medical News of New York* says:—JUDGE KOHLSAAT has imposed a sentence of one year in jail and a fine of \$500 on JAMES ARMSTRONG, President of the Metropolitan Medical College. The defendant was convicted recently of using the mails to defraud in connection with a "diploma mill." Sentence against THOMAS ARMSTRONG, who was convicted, and JOHN H. RANDALL, who pleaded guilty to the same offence, will be passed at the next term of court in March. JAMES ARMSTRONG made a hard fight, and he now threatens to prolong the legal battle in the higher federal courts. The ARMSTRONGS first began business in 1895 with the "Illinois Health University." This was a "diploma mill" on a small scale, and the Illinois State Board of Health, through its secretary, soon closed the doors of the bogus institution. Then the charter for the Independent Medical College was used. The charter of the college was revoked some years ago. The same kind of "grafting" was continued under the name of the Metropolitan Medical College, although a restraining order was issued in the State court against the officials doing business under this charter.

THE MOSQUITO FAMILY.

THE word mosquito has no scientific import. Derived from the Spanish or Portuguese, it simply means little "fly"; it is used popularly to denote a gnat which bites, and most gnats bite when they have a chance. The word is sometimes extended to include certain midges. The dipterous family, Culicidae, to which the gnat belongs, contains, according to Major GILES, some two hundred and forty-two species divided among eight genera. The great majority of species (some one hundred and sixty), however, belong to the genus *Culex*; *Anopheles* includes thirty, while the remainder are divided among the other six genera, none of which are large. The collections which have recently been made at the British Museum are said to contain ten species of *Anopheles* new to science, so that, if all Major GILES' species are accepted, we have a total of some forty species of the genus which has been hopelessly convicted of being the medium by which the malaria parasite is transmitted from person to person.

I. M. S. COMPETITIVE EXAMINATION.

The Bengalee says:—The *Indian Medical Record*, which is edited by Dr. WALLACE, urges the introduction of simultaneous examinations for the Indian Medical Service. The Government has advertised that 29 vacancies are to be competed for in the next London competitive examination. Dr. WALLACE asks why not have a competitive examination in India of the Indian Medical Service. We desire to repeat the query, and we pause for a reply. Dr. WALLACE, who ought to know, tells us that Government would get better men by holding a competitive examination here. Dr. WALLACE writes:—

Why not have a competitive examination in India for the I. M. S.? Graduates of our Indian Universities are rightly considered as well educated as medical men in England. Why not then give them an opportunity of showing their fitness for Government service by a fair and square competitive examination! In fact, why not establish a rule that henceforth competitive examinations for the I. M. S. shall be held simultaneously in London and in Calcutta? All these dreadful forebodings about not finding suitable men in England will then cease, and men of a really better stamp—for we certainly think an Indian M.B. or M.D. is far better educated than holders of British corporate licenses—both European and Indian, will enter the I.M.S. from our Indian Colleges. The solution of the problem of finding candidates in sufficient numbers for the I.M.S. lies in opening the door of competition to Indian and Anglo-Indian graduates from local Universities.

We are in cordial agreement with every word of the extract we have quoted above. Dr. WALLACE is one of the leading spirits of the Anglo-Indian Association, and if he would make common cause with us, as we hope he will, then we might almost be absolutely confident that the principle of simultaneous examination would be conceded within a measurable distance of time.

BRAVERY OF A HOSPITAL ASSISTANT.

The Baluchistan Gazette of 18th January says:—With reference to the account given in our last issue about the Loralai tragedy, it has come to our knowledge that the Hospital Assistant, MAKHAN SINGH, did not "bolt" when the fanatic came to attack the late Captain JOHNSTON, but, being himself altogether unarmed, he, after warning the deceased and begging of him to seek safety in flight, went a short way off and tried his best to maim or hinder the murderer by throwing stones at him; and it was this action of his that evidently provoked the miscreant to chase him, after he had made sure of his victim. We are very glad to be able to make public the decidedly plucky action of MAKHAN SINGH: under the peculiar circumstances attending the lamentable occurrence, we don't see what more he could possibly have done, unless he risked throwing his life away altogether. It is a most sad pity though that Captain JOHNSTON did not comply with his subordinate's entreaty, but it was his "kismet," we presume, and what happened was an inevitable pre-ordination, though Christianity forbids this doctrine.

GANGADIN VERSUS THE "INDIAN MEDICAL RECORD."

The Statesman of Calcutta has the following announcement:—

Before Mr. Justice STANLEY, at the Calcutta High Court yesterday, Baboo SATISH CHANDRA MITRA, of Messrs. T. H. WILSON and Co., Attorneys, applied on behalf of Dr. GANGADIN, of Amritsar, for the admission of a plaint against Dr. JAMES R. WALLACE, Editor of the *Indian*

Medical Record, for the recovery of Rs. 50,000 as damages for publishing a libellous letter in the *Indian Medical Record*, concerning the plaintiff, on the 12th April 1899, and another libellous article in its issue of the 18th April last, notwithstanding protest, which the plaintiff alleged were false and malicious and had injured his reputation and practice. His Lordship admitted the plaint and ordered a written statement to be filed.

A TEMPERATURE OF 120°F.

ACCORDING to the *Medical News*, ROBERT BRUCE, lately returned from service in the Ninth Infantry in the Philippines and China to Chicago, is reported to have this high temperature. Several days ago BRUCE entered the City Hospital and asked for treatment. When the house-physician took his temperature and found it to be 112°F., and the patient showing no signs of early dissolution, he was astonished. The next day it was found that the clinical thermometer had not sufficient range. Other physicians were summoned and a Government thermometer applied; the mark of 127°F. was registered, and for several days in succession BRUCE's temperature had reached this point. It is reported that BRUCE's pulse does not go up in proportion to his temperature. An explanation given as to BRUCE's condition is that a bullet, which pierced his mouth, lodged in the heat-centre of the brain.

THE PEACE OF PITY.

O brother man, fold to thy heart thy brother!

Where pity dwells, the joy of peace is there:

To worship rightly is to love each other,

Each smile a hymn, each kindly deed a prayer.

Follow with reverent steps the great example

Of those whose holy work was doing good;

So shall the wide earth seem a human temple

Each loving life a psalm of gratitude.

Then shall all shackles fall, the stormy clangour

Of wild war-music o'er the earth shall cease;

Love shall tread out the baleful fire of anger,

And in its ashes plant the tree of peace.

—WHITTIER.

BOGUS MEDICINE.

DR. J. EDWARD HENNA, of Brooklyn, says:—Antitoxine, the serio-comic of medicine, continues to receive constant attention in the journals, and promises to remain a prominent subject for future discussion. This is right, for the profession has never had a more momentous question to settle. In the interest of true medical progress, the fallacies of serum-therapy must be exposed and the mistaken views concerning statistics based on antitoxine treatment corrected; for if it is not done now, and we blindly follow the bell-wethers of bacteriology, they will lead us into a mire of mistaken conjecture, out of which it will take the profession a long time to flounder back to the firm ground of scientific truth.

HER LATE MAJESTY THE QUEEN.

THROUGHOUT India the greatest sorrow was expressed by all castes, creeds, and communities at the death of the Queen, and on Saturday prayers were offered by Hindus, Mahomedans, and Christians throughout the land. At Bombay, Calcutta, and Madras the memorial services in the Cathedrals were attended by representatives of the State. Memorials of the Queen are under discussion. At Calcutta it is proposed to carry out a scheme which His Excellency the Viceroy has proposed for the construction of a Public Hall and Museum. The Native Princes have promised liberal subscriptions.

SHORT ITEMS AND PERSONALITIES.

Dr. Jones, M. B. C. S., L. B. C. P., has been sent out by the Bengal Nagpur Railway Board as Assistant Medical Officer for this line. There is still a difficulty, it is understood, in obtaining the services of a second assistant medical officer at home, but it is to be hoped that one will be secured before the summer is round.

Major R. H. Charles, M.D., F.R.C.S.I., I.M.S. (Bengal) Professor of Surgical and Descriptive Anatomy in the Medical College, Calcutta, and *ex-officio* Surgeon to the College Hospital, is granted furlough out of India on medical certificate for eight months, with effect from the 20th February.

*Lieut.-Col. D. M. Moir, M.D., I.M.S. (Bengal), Offg. Civil Surgeon, Chittagong, is appointed to officiate as Professor of Surgical and Descriptive Anatomy in the Medical College, Calcutta, and *ex-officio* Surgeon to the College Hospital, during the absence, on furlough, on medical certificate, of Major R. H. Charles, M.D., F.R.C.S.I., I.M.S. (Bengal), or until further orders.

It is proposed to appoint sergeant cooks to superintend the training of soldier cooks under the new scheme for making British soldiers in India do their own cooking, but at present the Government has decided to limit such appointments to troops quartered in the hills.

Of the eighty-eight medical officers in civil employ who accompanied the China Expeditionary Force, twelve have returned to India, and thirty-two more will probably be sent back shortly. Leave for the Indian Medical Service may then be opened.

The establishment and early inauguration of a Central Bacteriological Institute for India is engaging the immediate attention of the Indian Medical authorities.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

NOTICE.

All members of the Indian Medical Association are kindly requested to send their names in full with their present addresses, clearly written, to the Secretary.

Members who have paid their subscriptions and who have not received the membership certificates are kindly requested to notify the same to the Secretary.

Subscribers are requested to communicate any temporary change of address not to the Office of this Journal, but to the post-office through which they are accustomed to receive their Journals.

The Indian Medical Association Provident Fund is now working. It offers a simple and safe form of Life Assurance to all medical men and women. Join at once.

The Indian Medical Record offers the following prizes:—Rs. 10 to Rs. 16 for a good Original Article; Rs. 5 to Rs. 10 for a good Clinical Report. Competitors must be subscribers to the Record.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Medical Appointments, Transfers, Exchanges are easily and cheaply effected through our special short advertisement page. See terms and apply at once.

News items of medical interest from all parts of the Indian Empire are asked for by the Editor for publication in the Record.

Will Members kindly notice that Seven "Calls" of one rupee each are due to the I.M.A. Provident Fund. Delay in payment means a hardship on claimants in distress.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta from the 5th to the 26th January 1901.

Year.	Week ending.	CHOLERA.				PLAGUE.				Small-pox.	Fever.	Bowel complaint.	All other diseases.	Total.	Total population according to the Census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.	Epidemic.	Deaths.	Seizures.	Sporadic.	Epidemic.	Deaths.	Seizures.							
1901	5th Jan. ...	31	..	..	..	38	..	..	..	96	211	140	289	805	616	57.3
	12th " ...	28	..	..	..	42	..	..	..	110	186	112	271	749	57.3	57.3
	19th " ...	35	..	..	..	49	..	..	..	92	188	110	248	722	681,560	55.2
	26th " ...	22	..	..	..	40	..	..	..	94	175	103	271	705	53.9	53.9

J. N. COOK, D.P.H., Health Officer of Calcutta.

Current Medical Literature.

MEDICINE.

Treatment of Dysphagia in Laryngeal Tuberculosis.

DR. EUGENE YONGE, of Manchester, reviews the various drugs which have been employed in the treatment of dysphagia in phthisical cases. The relief to be obtained from this painful symptom depends largely upon the selection of a suitable local anæsthetic, a substance which will be prolonged in its action, devoid of marked toxicity, not specially disagreeable to the taste, and not costly. He carefully tested a series of fifteen local anæsthetics, and while he found no ideal drug of this class applicable to every case, he found the following suitable and generally effective under various circumstances:—Cocaine, antipyrin, eucaine, orthoform, carbolic acid, guaiacol, morphia, and paramonochlorphenol. In the application of these drugs, it must be borne in mind that the absence of ulceration of the mucous surface is a contraindication to the use of orthoform guaiacol and morphia, as they fail to produce anæsthesia when the mucous membrane is intact. The author found that antipyrin maintained its anæsthetic action for a longer time than cocaine, and the quantity required was never sufficient to give rise to toxic symptoms. A mixture of cocaine and antipyrin, or of cocaine and carbolic acid, was found useful when the drug had to be used for considerable periods, the total effect of the cocaine being strengthened without a corresponding increase of that substance. Ice solutions of 5 per cent. cocaine appeared to be at least double the strength of the same solution at the ordinary temperature. Eucaine, while less toxic than cocaine, was found weaker, and was indicated when some idiosyncrasy debarred the use of cocaine. Orthoform, a comparatively new local anæsthetic (EINHORN and HEINZ, *München. med. Wochenschr.*) devoid of taste or smell, two valuable negative qualities when applied to a cleansed, laryngeal ulcer, produced, in the great majority of cases, complete relief, commencing in a few minutes after its application and lasting for several hours. It is nontoxic, and in conjunction with its prolonged action, it possesses very considerable advantages over cocaine in ulcerations of mucous surfaces. It is obtained in the form of a white crystalline powder, and its application can be made by means of a laryngeal insufflator. Guaiacol, with or without menthol in combination, had a sedative and antiseptic action in mild degrees of ulceration.

In dealing with the treatment by other methods than drugs, the author preferred rectal feeding, in exceptionally severe dysphagia, to the œsophageal tube, which caused so much distress and disturbance to the parts during its passage.—*Edin. Med. Jour.*

Toxic Factor in Diabetes Mellitus.

As the result of a clinical study, McCASKEY (*Medicine*) formulates the following conclusions: All cases of persistent glycosuria are cases of diabetes mellitus of varying grade. Diabetes mellitus is a disease of diverse origin, the unity of the clinical picture being for the most part dependent upon the glycemia and the glycosuria, which are mere incidents, although dominating factors of the disease. Phloridzin diabetes is not essentially different from clinical diabetes; it renders plausible the assumption of a chemical factor, either as a primary or as an important secondary element,

in the clinical type of the disease. Normal sugar transformation in the blood, the failure of which is responsible for the glycemia and the glycosuria, results from the presence in the blood of a chemical product, derived in man principally, if not exclusively, from the pancreas and thrown directly into the blood from the pancreatic cells, without the intervention of a duct. The direct chemical antagonism of this substance by another is no more improbable than such an antagonism of a toxin by an antitoxin. It is probable, on both clinical and experimental grounds, that certain chemical poisons, for the most part of gastro-intestinal origin, but possibly also resulting from faulty tissue metabolism, or as a perverted internal secretion from glands not necessarily ductless, either directly or indirectly antagonize, in whole or in part, the sugar-destroying substance in the blood, thus giving rise to glycemia and glycosuria, and thus, in a certain group of cases, either primarily causing, or at least exaggerating, the clinical phenomena of diabetes mellitus. If further investigation should corroborate the conclusions here provisionally set forth, it would be advisable hereafter to investigate the bacteriology of the stomach and the intestines in case of diabetes mellitus; and if evidences of virulent bacterial, protozoan, or other parasitic growth are found, these conditions should be met by suitable treatment—not with the expectation of entirely supplanting dietetic treatment, but as an important auxiliary to the latter, possibly rendering its restrictions less severe, with less resulting impairment of nutrition.

Malarial Peripheral Neuritis.

HIGHT (*Jour. Tropical Med.*) presents the results of a study of ten cases of malarial neuritis. Intermittent fever, persisting for a long time, or remittent fever with frequent exacerbations, is followed after some months by attacks of pain in the legs and knees. These pains are worse at night, and are sometimes associated with cramp of the muscles. Later the knees feel weak and give way, the limbs become painful in the daytime as well as at night, and the pain extends to the thighs, the back and the arms. Fever persists, the pain interferes with sleep, the weakness may become paralysis, cutaneous sensibility is blunted, and paresthesiæ are marked. The loss of muscular power may assume a remittent character. Hemeralopia may occur. The spleen and liver are enlarged. Deep pressure over the muscles causes pain. The tissues become flabby and may atrophy. Effusion into the joints sometimes occurs. The condition of the heart is variable; at one time it is quiet, and again it is rapid, with arrhythmia. Angina and tachycardia have been observed. Anæmia, cardiac dilatation and bemic murmurs are noted in some cases. Occasionally there is some œdema of the feet. HIGHT considers malarial peripheral neuritis to be a toxic affection of the nerves, the toxin being the product of the malarial germ. A single attack of fever rarely causes well-marked neuritis, the cumulative action of the poison on the nerves being required to bring about the pathological changes which give rise to the symptoms. The period of incubation extends on an average over eight months. Removal of the cause and efficient hygienic and medicinal treatment usually give good recovery. The diagnosis of the affection must, in most cases, be made from history. The principal points of difference are that in malarial peripheral neuritis we have marked anæmia, mild or absent heart symptoms, enlarged spleen, neuritis preceded by fever and often associated with it, the long incubation, the remittent character, the presence of plasmodium, the shuffling gait when loss of power is marked, and the readiness of cure. In beriberi affection of the heart is a regular feature, local œdema and serous effusions occur, the onset is rapid and usually attended with fever, there is no plasmodium, the gait is equine and typical, and sudden death is common. As the diseases occur in the same regions, one must think of malarial infection.—*Int. Med. Mag.*

SURGERY.**Diagnosis of Urinary Diseases.**

DR. L. GORL (*Klinisch-therapeutische Wochenschrift*) says the main considerations which lead the patient to the physician are pain, bloody or cloudy urine, or a change in the quantity of urine passed. Acute retention, pain, and a change in the appearance of the urine are the principal symptoms complained of. Hæmaturia must be the cause of a careful examination to discover its source. Clots of a long and thin character usually emanate from the kidney. Irrigation of the bladder, which is followed by a clear return flow after a few ounces have been injected, speaks in favor of renal hæmorrhage, especially if, after a clear solution has been returned, the last few drops are of pure blood. The cause of the hæmorrhage must be sought: direct or indirect injury, the effect of food or drugs, disease of the urinary apparatus, asparagus, cantharides, or turpentine may evoke a hæmaturia. If blood appears in the urine in the absence of other symptoms, it may proceed from the kidney or the bladder. In the former cases, renal carcinoma, heart disease, syphilis of the kidney, or a contracted kidney, may be at fault. In the first, the hæmorrhage is severe, is not influenced by rest, and a tumour may be felt. A heart lesion sufficient to call forth hæmaturia is usually of long duration and will be easily diagnosed. If the bleeding comes from the bladder, it is usually due to a benign or malignant growth on the anterior or posterior wall of the bladder. The blood is intimately mixed with the urine, and with the three-glass test the last portion may consist of pure blood. In benign tumours the hæmorrhage may be frequent or rare, and rest has no influence upon the character of the bleeding. In a malignant growth, such as a carcinoma with a long pedicle and many villi, hæmorrhage is frequent, while in a carcinoma infiltrating the vesical wall it is rare or entirely absent. Patients with enlarged prostates and a calculus in the bladder may show hæmaturia as their only symptom, which appears after some mild effort to disappear again after rest.

Treatment of the Initial Lesion of Syphilis.

WHEN excision or destruction by other means is not feasible, the following methods may be employed according to the location of the lesions:—

1. Within the vagina or at the portio-vaginalis. Apply mercurial ointment on cylindrical or round cotton pads to which a thread is attached to facilitate removal. In pregnant woman no pad, however small, should be introduced, but rather a suppository made as follows:—

R Ung. hydrarg. ... gr. lxxv.
Ol. theobrom. ... 3℥ss.

M. Ft. suppos. No. X. Sig. Insert in vagina. Or the lesion may be painted with one of the following solutions:—

A.
R Hydrarg. chlor. corros. ... gr. i.
Spiritus ...
Etheris sulph. ... 3℥ss.
M. Sig. External use.

B.
R Hydr. chlor. corros. ... gr. i.
Oniodii. ...
Etheris sulph. ... 3℥ss.
Ol. olive ... ℥i.

M. Sig. External use.

2. On the buccal mucous membrane, tonsils, etc. Paint with the alopholic-etheral solution of corrosive sublimate given above.

3. On the skin, or at the junction of skin and mucous membrane (lips, nose, nasal, female genitals, etc.) Cover the lesion with a piece of gray plaster, making it fit as smoothly as possible by means of incisions in its edge. Let it extend well over the border of the lesions. The renewal of the plaster should depend on the amount of secretion. The induration clears up rapidly, while ulcerations and erosions heal most satisfactorily by this method.—LANG. *XX Century Practice.*

Operative Treatment of Goitre.

J. BERRY (*Brit. Med. Jour.*) publishes some observations on the surgical treatment of goitre. While the enucleation is simple and safe, it is applicable only to localized tumors; hence skill in diagnosis is very essential. To attempt enucleation in an unsuitable case, and to abandon it for an extirpation, means considerable danger from hæmorrhage, and increased difficulty in performing extirpation. Many goitres, especially soft parenchymatous ones in young people, are curable by medical means; a still larger number, though not curable, do not cause sufficient trouble to demand operation. The main reason for operating is dyspnoea, either present or threatened; or in elderly people increase in hardness and size leading one to suspect malignant change. In a few cases operation is undertaken because of deformity. Dysphagia is rarely a prominent symptom of benign goitre. There are two types of goitre especially dangerous to life by causing sudden dyspnoea, viz, the bilateral, rapidly-growing, parenchymatous goitre in young people, in which fatal dyspnoea may intervene within a few hours, and the unilateral tumor, situated so low in the neck as to be jammed in the upper opening of the thorax, which, from displacement or sudden increase from internal hæmorrhage, may cause most grave symptoms. Unless such cases yield readily to medical treatment, surgical interference is advisable. When a small goitre is associated with marked dyspnoea, the trachea is nearly always compressed by another tumour hidden from view. In cases of marked dyspnoea there is grave danger in the use of a general anæsthetic, especially just as the tumour is being lifted from its bed. A local anæsthetic allows the patient to give intelligent assistance, prevents the venous oozing due to retching, and efficiently prevents pain. The incision giving most room is one along the anterior border of the sternomastoid. The transverse incision leaves a better scar low down in the neck, but it gives little room, and it is often necessary to cut the anterior neck muscles. In extirpation one must avoid injuring the recurrent laryngeal nerves, and a good way to do this is to isolate the lobe from surrounding tissue till near the trachea, and then to cut through the capsule and leave *in situ* the portion of capsule and a thin layer of gland which naturally cover the recurrent nerve. In enucleation one must keep a watchful eye on the hæmorrhage. The results are uniformly good.

Early Restoration of Function in Sutured Nerve.

DR. EARNEST LA PLACE reports a case of practically immediate restoration of function following suture of the ulnar nerve. The nerve had been severed for a period of sixteen months. When the ends were prepared for suturing, a distance of one and three-quarter inches intervened, but this was overcome by stretching. The ends were carefully apposed and a large number of sutures inserted. On the morning following the operation it was noticed that the boy had perfect motion of the hand. As no observation was made earlier, it is not known if motion was present immediately after the operation. Sensation in the fingers is curiously altered in that pricking at one part is felt in another. This is supposed to be due to the fact that corresponding proximal and distal ends of the fibres were not joined. The case presents points in support of the theory of the electrical nature of nerve force.

OBSTETRICS AND GYNÆCOLOGY.

Treatment of Seeming Death in the New Born.

DR. RISEMONT-DRETAIGNES said that infants born apparently dead showed one or other of the following groups of symptoms, viz.: Absence of cry, flaccid members, complete muscular relaxation, but persistent heart beat, though often feeble and at long intervals. Sometimes the cutaneous surface was bluish, purplish, or almost black, the face unmeddled, the eyes protruding and the conjunctiva suffused. This condition constituted cyanotic asphyxia. Sometimes, on the other hand, the skin was white and pale, the mucous membranes equally blanched, the heart-beats imperceptible; this state had been wrongly termed pale asphyxia. It was really syncope. Finally, in certain cases mixed forms were found, the characteristics not being sufficiently clearly marked to enable the cases to be labeled either as asphyxial or syncope. A consideration of these clinical facts would lead us to the course to be pursued in the respective cases. The asphyxial form was the most frequent in practice. It was due to the obstruction of the air passages by mucous fluids or amniotic liquid charged with meconium; whence it was necessary (1) to disengage the respiratory passages; (2) to facilitate the entrance of air into the lungs so as to re-establish or regulate the cardiac or pulmonary functions. Very frequently the mucosities occupied only the back of the mouth, consequently a simple wiping with the finger wrapped in a piece of linen sufficed to remove the obstruction and stimulate to the first inspiration. Cutaneous frictions, simple or with alcohol, ether, brandy, eau-de-cologne; hot baths, mustard baths, or baths alternately hot and cold, caused a cutaneous reaction forming most often a point of reflex departure ending in respiratory movements. On this principle was based the excitation of the mucous membrane of the nose, mouth or pharynx; also LABORDERIE'S rhythmical retraction of the tongue. Very frequently these procedures, however, were insufficient, and it became necessary to have recourse to artificial respiration. Numerous measures had been devised with the object of causing the air to inflate the lungs; mouth-to-mouth insufflation, and the methods of SYLVESTER, SCHULTZE, and BIVIER. These methods, however, fulfilled only one of the two indications mentioned above. A consideration of these indications had led the author to the insufflation method as being that of choice, and had given rise to the following data which had resulted in the construction of an instrument bearing his name: (1) The insufflation should be instrumental; (2) the apparatus should suck out the mucosities; (3) it should convey to the lungs a quantity of air. After referring to the objections to earlier instruments, the author described his own, for which he claimed the following qualities: (1) The curvature and the arrangement of the terminal portion rendered introduction easy. (2) The curve insured its retention in the respiratory tract. (3) It prevented reflux of air from the larynx. (4) It made easy the aspiration of fluids and mucous obstructing the bronchial canals. (5) Its proper insertion into the larynx, or its facile passage into the œsophagus, was easily ascertainable. (6) The rubber bulb allowed the passage into the lungs of only a quantity of air sufficient to distend them to their proper capacity, thus avoiding rupture of the pulmonary vesicles, which were very fragile at birth.

Advantages of Vaginal Section for Pelvic Suppuration and Circumscribed Hæmorrhage.

DR. E. N. LIELL (*New York Medical Record*) discusses the advantages of vaginal section over the abdominal method in dealing with cases of pelvic suppuration and hæmatocœle. He has done this operation himself in thirty-four cases, and holds that, while PEAN, JACOB, SEGUIN, and other French surgeons have removed the uterus, along with suppurating appendages, more successfully by the vaginal than the abdominal route, at least in bad cases, that a much simpler operation is in many cases sufficient, namely, vaginal incision and drainage; and also that in some cases, where the latter operation does not effect a cure, the local conditions can be so much improved that the uterus and appendages can be removed at a subsequent operation with less danger to the patient. He has in eight cases operated per vaginam, with the object of breaking down pelvic adhesions accompanied by pain, with complete success in six, the adhesions

and pain recurring in two; in the case of pelvic new growths complicated by adhesions, he has for diagnostic purposes operated on six occasions, and been able to demonstrate in two cases that the neoplasm was malignant.

As the procedure requires a sharp eye and a delicate touch, he is of opinion that the operation is only successful in experienced hands. His method is briefly as follows:—After careful asepsis, the uterus is drawn down with a volsellum, and a longitudinal or semi-circular incision made in the posterior *out-de-sac*, and the finger introduced into the incision with a boring motion; the abscess or hæmatoma is then entered with sharp-pointed scissors and the contents evacuated, care being taken to open and evacuate every pocket, should they be multiple. In nearly all cases the abdominal cavity is protected by a wall of lymph, and in very few cases has it to be opened; but this should always be done if the thoroughness of the operation demands it. "If a pus sac be the case, either tubal or ovarian, and adhesions to the uterus or rectum be present, the adhesions must often be broken up to anticipate the remote as well as the immediate good effects of the operation." The cavity should be swabbed out or irrigated and loosely packed with iodoform gauze, which should be removed in two or four days, and fresh dressings applied once or twice. If the contents have been thoroughly evacuated and good drainage established, convalescence is usually rapid. Ligatures are seldom required, forceps and torsion being usually sufficient. The THARDELENBURG position is the one adopted.

Dr. LIELL goes on to record two cases—none of pelvic abscess and another of encysted hæmatocœle—the result of ruptured ectopic gestation, in which he operated successfully by the vaginal route.—*Edin. Med. Jour.*

Post-partum Hæmorrhage.

BYRDS divides the causes of post-partum hæmorrhage into two groups: (1) Uterine atony, the bleeding in these cases arising from the uncompressed vessels in the placental area. (2) Wounds of any part of the parturient canal, without necessary uterine inertia. By far the most numerous cases belong to the first group. In the majority of cases post-partum hæmorrhage sets in without warning, though some things may put the physician on his guard, as hæmorrhage at previous confinement, rapidly succeeding pregnancies, the combination of want of exercise, and the consumption of too much food and stimulant, elderly primipara, etc. Chloroform does not promote post-partum hæmorrhage if care is taken not to deliver too rapidly. The two measures for the prevention of post-partum hæmorrhage are the proper management of the third stage of labor, and the important principle, never to deliver in the absence of pains. Two factors in the third stage of labor are the separation of the placenta and its expulsion with the membranes. Nature should be allowed to separate the placenta, and then, if she is not equal to the second task, the accoucheur may assist her in expelling the already separated placenta. In cases of secondary uterine inertia, in which labour comes to a standstill, the proper line of action is not to slip on the forceps and deliver, but to give a dose of opium; the woman will then fall asleep, after a time pains will come on again, and she will probably be delivered without any instrumental assistance. In instances of placenta prævia after bimanual version, the delivery must not be hurried, but time must be allowed for the uterine pains to come on again. When from the history or the symptoms post-partum hæmorrhage may be anticipated, precautionary measures are recommended, such as slow delivery of the fœtus, its birth being followed down by the hand on the fundus; the puncture of the membranes when the os is nearly dilated; and after it is fully dilated, the giving of two teaspoonfuls of liquid extract of ergot. If hæmorrhage does occur from an inert uterus, the first measure to be adopted is external uterine massage; second, the use of hot water, 118° F., in large quantities. The intrauterine tube should be so placed that the whole inner surface of the cavity is bathed. Salt, a teaspoonful to a pint, is preferable to creolin in the water as an antiseptic measure. Other measures are bimanual compression, packing the uterus with gauze and drawing downwards the uterus with a tractions, thus compressing the uterine arteries. When the hæmorrhage has ceased, the patient should be kept quiet, her head low, the lower part of the bed being raised to facilitate the weak circulation. Subcutaneous injections of ether and strychnine are most useful, but our main dependence is in saline transfusion.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Agglutinating Power of Human Blood Serum.

DR. J. DONATH (*Wiener klinische Wochenschrift*) has experimented with the blood of patients suffering from anæmia, chlorosis, leucæmia, and pernicious anæmia. The blood of a healthy person was mixed with eighty-five per cent. of a sodium-chloride solution, and was then mixed in equal quantities with the serum of the blood to be examined. A drop of this mixture was then examined in hanging drop under the microscope. Usually agglutination of the healthy blood was seen, but the results were not uniform. The blood of healthy persons, however, rarely seemed to possess the agglutinating power.

Primary Splenomegaly—Endothelial Hyperplasia of the Spleen—Two Cases in Children—Autopsy and Morphological Examination in One.

DR. DAVID BOVAIRD, Jr., says:—To the extremely scanty literature dealing with similar cases, he is fortunate in being able to add the cases of two children, sisters, similarly afflicted. The younger is living, aged six years, four years after the onset of the disease. The elder died at the age of sixteen, twenty-four hours after a splenectomy had been done, and thirteen years after the onset of the disease. The spleen in the latter case weighed twelve pounds and a half, the total weight of the child was seventy-five pounds. The form was, in general, that of the normal spleen, but very much larger. Most of the surface was yellowish-white in color like fibrous tissue, the normal color appearing upon only a small portion of the surface. Microscopically, there was nothing but the shape and arrangement of the spaces in which the endothelial cells lay, and the presence of the malpighian bodies to indicate the presence of spleen material on the slide. In the lymph nodes is also found a disappearance of the normal cells of the organ, and the development of an unusual number of endothelial cells. Other appearances seemed to demonstrate the presence of a splenic endothelioma; but when it is remembered that the process had existed for thirteen years in the case that came to autopsy, and that even then the condition of the patient was not incompatible with the prolongation of life for some years further, and also that the process was developing in a young sister at exactly the same time of life at which the disease appeared in the elder, it must be concluded that we have to do with the action of some systemic poison, rather than with a tumor. The author regards the process as a hyperplasia of the spleen, characterized by an unusual development of endothelial cells and the transformation of a considerable part of the organ into dense connective tissue. This affection, first described by GAUCHER as primary splenomegaly, or primary epithelioma of the spleen, is then a definite and distinct disease.—*Amer. Jour. of Med. Sciences.*

Structure and Genesis of Cavernoma of the Liver.

DR. VICTOR SCHMIDEN concludes from a clinical and pathological study: (1) That cavernomata of the liver do not rise from a primary connective tissue or vascular proliferation, or from congestion or primary atrophy of normal liver areas, or biliary stasis or hæmorrhage; (2) that they more probably arise from some congenital tissue transposition or defect in the development of the liver—they are therefore due to tissue deformities, and acquire their definite form from a secondary, retrogressive

change; (3) that cavernomata of the liver are not analogous to angelomata of other parts of the body—they should be called "cavernomata" or "naevi cavernosi hepatis"; (4) they are observed at all ages, even in the unborn fœtus; (5) that they are identical with cavernomata in the lower animals; (6) that they never show a tendency to become malignant.—*New York Med. Rec.*

Heredity.

M. CHANTEMESSE concludes his lengthy and learned paper on this subject. He sums up by saying that truly hereditary characteristics result from the fusion of the paternal and maternal germinative cells, or, rather, the chromatin bodies of these cells; he points out how the germinative cells, the embryo, or the fœtus, can become infected by the virus of toxins or poisons known to exist in the body. The reduction of the chromatin in the act of maturation of the germinative cells, and perhaps also the qualitative division of the microsomes of the nuclei of the cells, help in the eradication of certain definite characters of the parents, or aid in carrying them over one or two generations. The moral ego, the natural personality, which is first in the consciousness and which has been designated by metaphysicians as an irreducible unit, only represents the true state of equilibrium between the diverse hereditary forces. The ego is subject to suggestion, that is, to education, and thus by education hereditary tendencies which are latent may be reinforced, while others, even though they are prominent, may be relegated into obscurity, or, at least, into the background.

In pathological hereditary transmission, we have good instances in the birth of healthy children when a father is sober at the time of procreation, and the reverse, showing that the poisons once eliminated, the fecundating act produces healthy offspring. As to syphilis, its transmission and the prevention of its transmission by suitable treatment are well understood. As to tuberculosis, there is good reason to believe that in the great majority of instances infantile tuberculosis is acquired, and that contagion plays the most important role. While the direct hereditary influence, especially on the part of the mother, cannot be denied, it is of secondary importance.

White Blood Cells in Disease.

M. J. JOLLY regards leucocytosis in disease as a defending action of the cells against the germs of disease. When a leucocytosis persists after convalescence seems to be established, as is frequently the case in pneumonia, it is evidence that the disease has not reached its termination. The author regards it as a reaction that gives us the measure of the intensity of the disease. The seeming discrepancy of the absence of a leucocytosis in rapidly fatal intoxications can be explained by the fact that the latter are grave infections from the beginning, and run their course rapidly, while the former represent the somewhat slow extension of an anatomical lesion. The leucocytes are able to absorb not only living bacteria, but soluble substances as well, so that they probably get rid of some of the toxins elaborated during disease. Moreover, by means of their emigratory power, the white cells can pass to points which the blood cannot reach, and thus carry out their work. The origin of the antitoxins is still in dispute; whether they are derived from the leucocytes or from various organs is not definitely known.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Care of Children.

THERE is great opportunity and demand for some medical artist of the pen to paint, in glowing terms, the lot of children as it really is, and as it should be.

Even the most loving and well-meaning parents are strangely neglectful of the best interests of their little ones. Very few children are understood or properly managed. They are governed by caprice, the whims and convenience of their elders receiving first consideration. If it were not that Nature is very strong in children, as in all weak, defenceless creatures, few of them would grow up to healthy man and womanhood.

The old, selfish attitude of parents to children was that of ownership. Such an attitude makes slaves of children, and robs them of their natural rights. Such advantages as they enjoy then come under the head of privilege, indulgences for which they must pay court to parents and render unquestioning obedience.

The true view of parentage is that of a trust. A child is a little bundle of propensities and inclinations, to be trained to self-government, good and industrious habits. To this end it must have a strong and vigorous body, mental and moral discipline. Comparatively few parents try to fulfil these requirements by any regular system of management.

The great majority of children sleep when and where they can. There is no particular bedtime or nap hour. They eat irregularly anything that comes to hand. Bathing is negligently performed. If they are sensitive to cold, the cause of this sensitiveness—usually an unhealthy skin or lack of hemoglobin in the blood—is not sought and treated, but the child kept close in the hot, stuffy house, and loaded down with clothes, debarred from out-door exercise in contact with the life-giving air.

In childhood the size and vigor of the heart, the tone of nerve centres, the growth of bone, development of muscle, size and capacity of vital organs, is greatly influenced by the life led. At this time organization is imperfect, because growth and development are going on. Consequently, modification of unhealthy hereditary tendencies is easily effected by arranging for the child a mode of life calculated to stimulate all that is normal, and eliminate evidences of disease.

Children are naturally fickle and inconstant, seeking novelty, living in the present moment, shirking all that is restraining and irksome. Due allowance must be made for this to avoid strain, but still wise management can inculcate good and regular habits.

A child should have a set and an early bedtime. Congestion of the brain from insufficient sleep and unnatural excitement is at the bottom of many childish disorders. Children should not satisfy appetite all times a day on putty-like bread and glucose jellies. The mother should oversee the bathing of even large children. They cannot appreciate the necessity for cleanliness and will neglect themselves until the pores are so obstructed that a gummy mass consisting of epithelial scales, evaporated products of perspiration and oil, that Nature must start a skin disease to get rid of it.

Apathetic and indolent children, lacking in the normal play impulse, should be regularly and moderately exercised to keep them in condition. If this is not attended to, instead of developing power and resistance in the nerve centres and

a well-knit frame, they often take on huge masses of inert, feeble, flabby flesh, the tissues are clogged with waste from defective elimination, the child is always ailing, impotent, and unable to enjoy life rationally.

Teach your patients to love their children wisely, not too well. To regard them as individuals, not puppets and playthings. As they respect and intelligently care for them while ignorant and helpless, so will they reap a reward of pride and satisfaction in them when the time comes for them to go out into the world and do for themselves.—*The Med. Brief.*

Factors Leading to a Relatively High Percentage of Male Offspring.

AFTER studying more than 300 marriages with the object of discovering some of the conditions likely to give rise to a relatively high percentage of boys, Dr. GERALD S. WALTON has come to the following conclusions: (1) Do not marry the eldest daughter of a family, but rather the youngest. There is a progressive increase of boy-producing power from the eldest up to the youngest daughter. (2) Do not marry one whose age differs much from your own, and do not marry much under or over 30. (3) Do not marry a widow. (4) Do not refuse to marry a cousin, or an only daughter. He thinks that if these rules are followed, we will hear less often the complaint of paterfamilias that he has "seven daughters who prophesy" and, alas, not one son.—*Phil. Med. Jour.*

Not Liable for Trespass of Health Officer.

A THEATRICAL troupe left New Orleans for San Antonio on the last train before a quarantine was declared in Texas against New Orleans on account of yellow fever. On arrival at San Antonio, several of the members of this troupe registered at a certain hotel, the others taking quarters elsewhere in the city. In the afternoon of that day, under direction of the mayor and city physician, all were taken in charge by police, and taken to the hotel mentioned, where, without the consent and over the protest of the proprietor, they were quarantined as yellow fever suspects and detained by police officers for six days. This greatly injured the business of the hotel, and the proprietor sued the city for damages. The allegation was that the city, by and through its mayor and health officer, committed the acts complained of. It is probable, says the Court of Civil Appeals of Texas—City of Antonio vs. White—that this was a sufficient allegation that the city caused the acts to be done. It further says that the acts detailed above constituted an unwarrantable trespass, for which the mayor and health officer were probably liable. But it holds that a fact that is essential to the city's liability in cases of this kind was wanting, namely, the fact that the city was, or had made itself, a party to the trespass. It says that there was absolutely no evidence from which it could be found that the city directed, or had ratified, the proceeding, and a city, it holds, is not liable for acts of its health officers, or for malfeasances. At least it is of the opinion, it says, that, without some testimony connecting the corporation with the transaction complained of, either by showing its previous direction, or participation therein, or ratification, there was no basis for any claim of liability against it. Again, the court says, that it is of the opinion that a city could not, under the guise of exercising a strictly governmental power, evade the constitutional provision that private property is not to be appropriated for public use without just compensation; but it says that it is clear that the act must be the act of the city in such a case. A city cannot be held liable for property taken or appropriated by a trespass with which it has no connection at all. Wherefore, it holds that it was error to refuse to charge the jury in this case that the city was not liable for any wrong or trespass committed by its mayor, city physician, or police officers, and therefore to return a verdict for the city.—*Phil. Med. Jour.*

THERAPEUTICS & PHARMACOLOGY.**Extract of Suprarenal Capsules in the Treatment of Rachitis.**

W. STOLTZNER (*Jahrbuch für Kinderheilkunde*), from his studies in the use of suprarenal extract in this affection, reached the following conclusions:—

1. Suprarenal extract exercises a very favorable action upon the general state, the agitation, the perspiration, the vasomotor excitability, and especially the craniotabes of rachitic infants. All these symptoms are often considerably ameliorated within eight to fifteen days.

2. Children thus treated rapidly become able to walk, to run, and to sit upright; the softness of the bones of the thorax disappears very rapidly, and the delayed teeth begin to appear.

3. The dimensions of the fontanel, the deformity of the thorax, the costal rosary, the epiphyseal swellings, and the deformity of the limbs, are little influenced.

4. Spasm of the glottis almost always resists this treatment.

5. The amelioration of all the symptoms is especially manifest during the first eight days of treatment: later it is much less rapid.

6. If the treatment be interrupted, improvement ceases, or there is actually an aggravation of the condition, which yields when the treatment is begun anew.

7. Even in cases complicated by syphilis, enteritis, bronchitis, or broncho-pneumonia, treatment by suprarenal extract produces considerable amelioration of the rachitis.

8. In a case of grave rachitis treated by suprarenal extract, in which death was caused by the capillary bronchitis, the histological examination of the bones showed that there were no traces of osteoid tissue, and that even the periosteal osteophytes gave an almost complete reaction of calcified osseous tissue.

Arsenic in Malignant Tumors.

TRUNECKY, of Prague (*Medical Press*), has brought forward the old treatment of arsenic in malignancy under a new guise. According to his method the growth must be painted over with a solution of arsenious acid in alcohol—40 to 75 parts of the latter. The transformation is marked in a very short space of time by healthy granulations, and healing soon appears. This form of treatment, under the designation of the CZERNY TRUNECKY method, is practised in ulcerating sarcoma. When the growth is not too large, or the patient not too much debilitated, perfect recovery can be promised. He records the case of a female who had suffered from a sarcoma of the skin for twenty-four years, and after eighteen months' treatment was perfectly cured.

In following the transitions, the first change observed is an anemic condition of the superficial tissue, which cannot be distinguished from the normal beyond being bloodless; deep incisions only let out a serous fluid which oozes out slowly. Subsequently the growth gradually hardens till it is even difficult to cut, and finally necroses, lying as a hard foreign body which can be easily removed.

Mode and Rapidity of Reduction of Temperature by Quinine.

WILLIAM SYKES says:—Observations are here reported on the action of quinine as an antipyretic given in cases of high temperature, in single large doses. The temperature was closely watched for two or three hours in each case. He finds that the quinine was rapidly absorbed, the temperature began to fall in forty-nine minutes, probably in less time in the first case, and in the second and third series within twenty minutes. The size of the dose did not seem to affect the rapidity of the diffusion. In the cases experimented on, we have respectively 20, 40 and 30 grains without corresponding differences in the time of its effect. The methods of its action are obscure: (1) Destruction of pathogenic bacteria, which he thinks is negatived by the temporary nature of defervescence. (2) Neutralization of their resulting toxins, which is improbable, as they seem to bear no relation to each other. There remain only two probable methods of action, namely, on the heat-centres and on the sweat-centres. He thinks if it acted on the heat-centres the proportional decrease of temperature after exhibition of the drug would not be as irregular as it is, and the speed would not be

affected by the amount of dosage. The drug acting on the nerve-centres might be liable to produce an immediately great and regular effect on its function, which would be expected to agree in rapidity of action with the size of the dose administered. If, however, we accept the notion of its action on the sweat centres as true, an explanation of many of the difficulties is furnished. Since defervescence by diaphoresis depends on the sweating itself, and not on its action, it is obvious that the size of the dose of the drug administered, so long as it was sufficient to produce perspiration at all, would have no result on the speed of the defervescence; since slight movements in bed, by which the surface becomes chilled, would temporarily stop the diaphoresis, the stationary and even retrogressive intervals would be quite explicable. Moreover, most or all the antipyretic groups possess one quality in common when given for reduction of temperature; they produce violent diaphoresis: it also occurs in night-sweats produced by the toxins of the tubercle bacilli, which are in like manner succeeded by a normal or subnormal temperature.—*Jour. Amer. Med. Assoc.*

For Chronic Nephritis.

ACCORDING to the *Gazette hebdomadaire de médecine et de chirurgie*, M. LEMOINE recommends the following:—

R. Benzoate of Lithium	...	...	7½ grains.
Betol	...	...	8½ "
Sodium bicarbonate	...	...	3 "

M.

For one wafer. Two or three wafers may be taken daily between meals.

When the patient presents an intermittent diminution of urine, which is dark-colored and may even contain blood, LEMOINE has recourse to tannin, which he prefers to gallic acid, and which he prescribes as follows:—

R. Tannin	...	...	7½ grains.
Powdered cinchona	...	...	of each

M.

For one wafer. Two wafers daily at meal times.

If the patient cannot swallow the wafers, tannin may be given in form of a syrup, thus:—

R. Tannin	...	...	87½ grains.
Glycerin	...	...	450 "
Syrup of bitter orange peel	...	...	1,800 "

M.

From four to six tablespoonfuls daily at the beginning of meals.

This treatment must be considered for some time, but it is well to suspend treatment for one week in four. Sometimes M. LEMOINE alternates alkaline medication with tannin, administering the wafers of benzoate of lithium for a fortnight, and the tannin during the subsequent two weeks.

Correspondence.**IN DEFENCE OF CIVIL ASSISTANT SURGEONS.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to the remarks made by "LIEUT.-COL., I.M.S.," in his letter published in the *Record* of the 26th December 1900, I shall first deal with the amusing picture he has drawn of Civil Assistant Surgeons. What he has written is no doubt to some extent true—how far, I shall leave your readers to judge; but if he has found nothing better in his "long experience in the three presidencies," I am afraid the men he has come across are not average specimens of the service. Nobody denies that there are a good many Assistant Surgeons of the sort described, but there are others—and these are not a few—who, as all India knows, would do credit to any service or community. Indians have, of course, their defects; but where is the nation which is perfect? Personally, I am much obliged to Colonel Sahib. His exposure will undoubtedly have a salutary effect, and in gratefully acknowledging its usefulness, I hope that every Civil Assistant Surgeon will take it to heart. At the same time I would submit that, for whatever Civil Assistant Surgeons are, it is not they who are to blame. They are as they are made, for the condition of

India is at present such that very few can make themselves. The intellectual capacity of Indians, as a rule, is admittedly not inferior to that of Europeans. High authorities have testified to this. Witness how Indians acquit themselves in the most difficult examinations held in Britain, competing with Britishers on their own ground. Witness how Indians, after proper training, acquit themselves in the highest offices in all departments of Government as Chief Justices, Judges of High Courts, officers of the Indian, Civil and Medical Services, Engineers, and so on. The shortcomings mentioned are mainly due to defects in the system of education and in service rules, for which Government is responsible, and other circumstances over which they have no control. They learn their English from European teachers, and if they are unable to express themselves intelligibly (as a matter of fact only some antiquated Assistant Surgeons who under the old rules were allowed to enter the Medical Colleges with a very meagre knowledge of English are of this sort, the majority of the present officers are F. As., some are B. As., and some have a British education, and as a rule, though their English may not be scholarly, it is at any rate tolerable and certainly intelligible), it only shows that either the standard laid down by Government is still too low, or that the teachers fail to do their duties properly, or that there are defects in the system of education. If Assistant Surgeons do not know anything more than "milk, eggs and soup," and do not realise fully the importance of discipline, it only shows that they are not properly taught and trained by their European Professors and Civil Surgeons—all I. M. S. officers. If after years of education under European teachers they are "not cleanly in their attire on all occasions," and are so deplorably wanting in self-respect that they do not hesitate to associate on terms of coarse familiarity with petty subordinates and bazaar people, the inference is that the education given to them is but superficial, imparting only a smattering of language and science, and bringing no real culture with it, and that, therefore, either the teachers are incompetent, or the system is rotten. I admit that caste prejudices, social customs, etc., prove obstacles to a certain extent at the beginning; but under proper education their retarding effect is considerably minimised. Many high Indian officials are orthodox people, but the fact of their being orthodox does not in any way affect their official dealings.

Education in India (on account of its political condition) is practically in the hands of Government. In the colleges the professors give their hour's lecture and go away. They are not in touch with the students at all, and the latter learn nothing from them except a few crude facts about the subjects they are taught. There is absolutely no opportunity for learning the thousand-and-one other little things without which education cannot be complete. Western and Eastern customs and modes of thought differ widely: what is refined and dignified according to the one, is vulgar and undignified according to the other; but everything is judged by the European standard, and on account of mutual ignorance there are frequent misunderstandings. Few people can afford to go to Europe. In India there is no opportunity for rubbing shoulders with Europeans, because the majority of the latter keep Indians at arm's length, and have nothing but open contempt for everything "native." The result is that native officers are, as a rule, made inglorious people, lacking that superficial polish without which, according to European ideas, one is not civilised; but, as far as crude knowledge or morality or dignity goes, they are in no way inferior.

As regards approaching the servants of superior officers with money, offering to procure bazaar supplies, &c., the same argument again holds good. If you make people hewers of wood and drawers of water, do not blame them for hewing wood and drawing water. Colonel Sahib may be one of the few European officers who

appreciate self-respect in their Indian subordinates, but the majority of his brethren do not. Anything like self-respect in a "native" is considered preposterous. The degrading practices mentioned, and others not mentioned, are resorted to, because there is no other way. Even the lowest of the low would not like to be so slavish, but when there is no help, what is to be done? Of course the moral courage to preserve one's self-respect at any cost is lacking, because centuries of misrule have killed the very germs of independence. During pre-British administrations, sycophancy was a *sine qua non* for existence itself. "Nuzzurs" and bribes were indispensable. Under British rule reform has only been partial: much of the old system still remains. What is worse, British officers themselves are getting poisoned in Indian atmosphere. Under the intoxicating influence of princely salaries, unlimited authority, and overwhelming temptations, true British instincts get narcotised very soon, and the British officer becomes, to all intents and purposes, a little nabob—at any rate as far as his relations with his Indian subordinates go. The servants of the sahibs of to-day are "improved editions" of those of the nabobs of yore. From all the sahib's native subordinates they of course demand the usual "bakheesh," and woe to the wretch who does not pay. He must go to see the sahib according to the usual custom, and then the servants have their revenge. Even if they spare him open insults, they always behave with marked impertinence. You call in the afternoon, and you are told that the sahib does not allow "kala admees" to see him at that hour, or the servant is so busy that he does not take your card in before half an hour, or you are asked to put off your shoes outside, even though you are in English costume (Government orders only require that the shoes should be of European pattern), "as all kala admees do so." If you complain, the sahib soothes you by saying that the servant is an ignorant man, that he did not mean anything, and so on. If you say that he behaved rudely because you refused to pay the "bakheesh" he demanded, the servant, with an air of injured innocence, which even Irving would admire, will produce twenty witnesses (at one pice each) to swear that he did not demand anything, that you complained because you owed him a grudge, and the sahib piously believing that the love of truth in all "natives" is equal, literally weighs the evidence (like many of our judges), and finding the scale heavier on the servant's side, decides in his favour, or at any rate gives him the benefit of the doubt. You leave the sahib's bungalow a sadder and a wiser man, and when next day you happen to meet the servant, and he makes you a knowing salaam, you begin to realise that the path of rectitude is indeed a thorny one. How often, of how many men, and to how many men can you complain? It is the same all over.

Colonel Sahib says native officers cannot enforce discipline in managing their servants. Can European officers do it? Of course they are salaamed and "huzured" and all that, but is there any real discipline? Can they prevent dishonesty? All of them know that their chapprasies blackmail native visitors; but do they move a finger to prevent it? In the Upper Provinces the doings of Inspector-Generals' and Civil Surgeons' clerks and chapprasies are wellknown, but do Colonel Sahib's brother officers ever care to mend matters. Officers come and officers go, but all of them "do likewise." If any native officer has the courage to openly complain of the scandalous conduct of these underlings, he finds himself in trouble, because it is very difficult to prove one's statements. When by the payment of a few rupees all this unpleasantness can be avoided, and when non-payment means inevitable annoyance, the only course is to pay—"as others do."

Every Civil Assistant Surgeon learns, as soon as he enters the service, that sales, kowtowing, tips, bribes, "loans" of horses, figures in returns (never mind how

manufactured), a slavish acquiescence to the sweet will of the powers that be, and an elastic conscience, go more towards securing the good opinion of superior officers and good posts than honesty and ability, and that self-respect is altogether out of the question, if one does not wish to get into hot water. Colonel Sahib would have us believe that it is on account of the defects pointed out by him that Government does not think it fit to give Civil Surgeoncies to Assistant Surgeons and to put them in independent charge even temporarily. Why, the very men who are the worst specimens of the type depicted by him get the most responsible and coveted Assistant Surgeoncies and are nominated for Civil Surgeoncies, while "Europeanized" gentlemen, even with British degrees, are left out in the cold, because they cannot stoop to please their superiors and their underlings by taking to the degrading practices mentioned above.

In a certain province, for instance, one of the Civil Surgeons under the new rule is a man who cannot write a sentence of English correctly, who professionally is a congenital idiot, and is known, incredible as it may seem, to have actually cleaned the boots of one of his superior officers publicly in his hospital before all his subordinates! What a lesson to the other Assistant Surgeons of the province! And if this man, so wisely and justly "selected" on account of "merit," proves unfit for the position he holds, the conclusion will of course be that all "natives" are unfit for high posts. Men of this sort, in spite of their incompetence, are invariably spoken of favourably by their superior officers; while those who attempt to preserve their self-respect, though honest, hard-working and admittedly able, are almost always eyesores, and are made the victims of confidential, demi-official and private reports, even if they escape open official unpleasantness.

Colonel Sahib says that to be worthy of a Civil Surgeoncy an Assistant Surgeon "should be above influence in his public duties, caste prejudices, &c." The ideal given is of course perfect; but if an impartial view be taken, I am afraid it would be hard to find *any* officer, or even the Government itself, coming up to it. In his own service Colonel Sahib will find that many officers are "selected" for good stations, administrative appointments, &c., not really on account of special merit, but simply because the authorities are not "above influence in their public duties." Why then expect a "native" Assistant Surgeon to be a god, when sundry frailties and temptations make even celestial beings descend from their sublime heights to the humdrum level of erring mortals?

I shall pass on to the other points now:—

VISITING CHARGES.

I do not assume that every Civil Assistant Surgeon is capable of "working a district straight away." In every service there are both competent and incompetent men, and I only say that competent Civil Assistant Surgeons can safely be put in officiating independent civil medical charge. Those who have been appointed to officiate have worked satisfactorily, as can be seen from the remarks made by several Inspectors General in their annual reports. My contention is that if an officer is considered fit to do the work for 29 days in the month, he may surely be trusted to do it on the 30th day as well. If any particular Assistant Surgeon is found incompetent, or is not considered competent, a better man can easily be found to replace him. As regards European supervision, granting that it is necessary, there is the Inspector-General to exercise it. An intermediate supervising officer is superfluous. The so-called "control" of the officer in visiting charge is, as everybody knows, only nominal, and has absolutely no effect on the medical administration of the district. As I have already stated, the visiting officer simply walks round the hospital, signs a few books without looking at the pages, and sends the stereotyped inspection

note. He is not to blame for it, because his inspection must be a hurried one, as he has his own district to look after: it is the *system* which, I repeat, is faulty. In some cases even the inspection visit is not paid, though the allowance is drawn all the same! Not only does the district visited derive no practical benefit, but the one from which the visiting officer comes loses his services for four or five days in the month (more if the distance between the two is long); Government has to pay the charge and travelling allowances, and the poor Assistant Surgeon, who gets the paltry sum of Rs. 70 for doing all the work, is debarred from drawing first-class travelling allowance, because he is not "in independent" charge.

Another ground which may be put forward in favor of the present system is that the European officers of the district require a European Medical Officer. But even this is not valid, though at first sight it may appear to a certain extent reasonable, on account of the fact that in administration even the prejudices of people have to be taken into consideration. It has already been decided that Assistant Surgeons are to be appointed Civil Surgeons in 28 districts, some of the officers of which must necessarily be Europeans, and these will have to be contented with a doctor of Indian nationality. Why should not an Indian doctor be considered sufficient for a few men for a short time during the absence of the permanent Civil Surgeon of the district? If competent Assistant Surgeons are in charge, European officers will never complain.

Yours, &c.,

TOMTIT, M.B.

To be continued.

I. M. S. MEN AS PRIVATE PRACTITIONERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your stirring article on the impolicy and the scandal of allowing I. M. S. doctors to practice *privately* in rivalry with independent doctors will unquestionably awaken the Government to the wrong that it has so long permitted to be publicly done. There can be no doubt that private practice by I. M. S. men must, and will, be stopped by order of the Viceroy. Why then do not these men take your friendly advice, which was given in that very fraternal editorial headed "CONSULTANTS IN INDIA: THEIR STATUS AND THEIR FEES," and drop general and family practice. Surely by having fixed daily consulting hours in their own houses, and sticking to purely consultative work, they will have quite enough to do, and enough in the way of "fees" to be satisfied with. You are right to expose this barefaced evil, and no language can be too strong, nor can any condemnation be considered ill-deserved if it serves to open the eyes of the Government to this huge system of dishonesty, for dishonesty it is. A man cannot serve two masters: he cannot serve God and mammon; even so these men cannot work fully and honestly for Government with a full day's State work to do, and yet do a full day's private practice. Every one knows how the hospital work of I. M. S. men is scamped in their mad hurry to run after outside fee cases.

It is to be hoped Lord Curzon will take the initiative in this matter, for the Surgeon-General at the head of the I. M. S. is certain not to move hand or foot to put down any wrong which men of his service are doing.

Yours, &c.,

M. D.

SUBATHU LEPER ASYLUM.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The Subathu Leper Asylum is much in need of funds just at present, for during these winter months the income by no means is enough to cover expenses.

We have at present over one hundred Indian inmates and two Europeans—one woman and one young man.

The Asylum is situated in one of the four areas, where the proportion of lepers to the population is the largest, in India, about forty to ten thousand, and there is no other asylum near to take in the large number of lepers found in this region.

They are the first to feel want, and in increasing numbers are seeking admittance, forty-one having been admitted during 1900.

A little help at this time will be much appreciated, and enable us to meet the increased expense.

Yours, &c.,

M. B. CARLETON, M.D.,
Superintendent, Leper Asylum.

SUBATHU, PUNJAB;
5th February 1901.

"MARRIAGE AMONG LEPEERS."

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—What is the general opinion of the medical profession in India on the advisability of allowing lepers to marry—should it be allowed, or forbidden?

Yours, &c.,

M. B. CARLETON, M.D.,
Superintendent, Leper Asylum.

SUBATHU, PUNJAB;
6th February 1901.

(We trust this letter will elicit full replies from all who have experience of this deeply interesting subject.—ED., I. M. R.)

Government Medical Gazettes.

BENGAL.

Capt. E. B. Waters, I. M. S., is apptd. to be Deputy Sany. Commr., Western Bengal Circle, but will continue to be on tempy. milly. duty.

Capt. A. W. E. Cochrane, I. M. S., is apptd. to be a Resident Med. Offr., Med. Col. Hosp., but will continue to be on tempy. milly. duty.

Lieut.-Col. B. Cobb, I. M. S., Offg. Civil Surgn., Backergunge, is confirmed in that appt.

Maj. F. P. Maynard, I. M. S., Offg. Civil Surgn. of Patna, is confirmed in that appt.

Lieut.-Col. B. R. H. Whitwell, I. M. S., Civil Surgn. of Chittagong, on leave, is apptd. to be Civil Surgn. of Ranchi, vice Maj. F. P. Maynard, I. M. S., transferred.

Maj. D. M. Moir, I. M. S., Offg. Civil Surgn. of Chittagong, is confirmed in that appt.

Lieut.-Col. Hem Chunder Banerjee, I. M. S., Civil Surgn. of Backergunge, is apptd. to be Civil Surgn. of Purnea, vice Maj. D. M. Moir, I. M. S., transferred, but will continue to be on tempy. milly. duty.

BURMA.

Hosp. Asst. Anant Singh, proceeding on three months' privilege leave, relinquished ch. at the Civil Hosp., Paundge, Prome dist., on the 9th Jan. 1901.

Hosp. Asst. Shyam Kishore Dey having qualified himself for promotion, is entitled to the pay and allowances of that grade from the 16th Oct. 1900.

Hosp. Asst. Syed Abdul Ghanny relinquished ch. at the Police Hosp., Myitkyina, on the 17th Nov. 1900, and assumed ch. at the Outpost Hosp., Endawgyi, Myitkyina dist., on the 2nd Dec. 1900.

Hosp. Asst. Raj Chunder Kur, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 28th Dec. 1900.

Hosp. Asst. Umachandra Chakraborty, on return from leave, assumed ch. at the Police Hosp., Bhamo, on the 23rd Dec. 1900.

Hosp. Asst. Maung Lu Gale relinquished ch. of supy. duty at the Lunatic Asylum, Rangoon, on the 2nd Jan.

1901 and assumed ch. at the Civil Hosp., Paundge, Prome dist., on the 9th Jan. 1901.

Hosp. Asst. Syed Mahomed Abbas Saftar made over, and First Grade Hosp. Asst. S. Paul assumed, ch. of additional duties at the Police Hosp., Pagan, Myingyan dist., on the 10th Dec. 1900.

Hosp. Asst. V. Narasimhan Naidu assumed ch. at the Police Hosp., Falam, Chin Hills, on the 17th Dec. 1900.

Hosp. Asst. Paramanand Sukul relinquished ch. of his duties at the Civil Hosp., Falam, Chin Hills, on the 1st Dec. 1900, and assumed ch. of his duties with No. 2, Southern Chin Hills Column, on the same date.

Hosp. Asst. Daniel Paul assumed ch. of addnl. duties at the Civil Hosp., Falam, Chin Hills, on the 1st Dec. 1900, vice Hosp. Asst. Paramanand Sukul.

Hosp. Asst. Daniel Paul made over, and Hosp. Asst. V. Narasimhan Naidu assumed, ch. of addnl. duties at the Civil Hosp., Falam, Chin Hills, on the 17th Dec. 1900.

Hosp. Asst. Daniel Paul relinquished ch. at the Police Hosp., Falam, Chin Hills, on the 17th Dec. 1900, and assumed ch. of his duties with No. 2, Southern Chin Hills Column, at Minkin, on the 19th Dec. 1900.

Hosp. Asst. S. Bastian relinquished ch. at the Police Hosp., Falam, Chin Hills, on the 25th Nov. 1900 and assumed ch. of his duties with No. 1, Southern Chin Hills Column, at Haka, on the 30th Nov. 1900.

Hosp. Asst. Sawan Singh relinquished ch. at the Civil Hosp., Wundwin, Meiktila dist., on the 6th Dec. 1900 and assumed ch. of his duties with the Milly. Police Detachment proceeding from Thazi, Meiktila dist., on the 8th Dec. 1900.

Hosp. Asst. M. A. Aubaranam Pillay relinquished ch. at the Civil Hosp., Mogaung, on the 29th Nov. 1900 and assumed ch. at the Outpost Hosp., Kamaing, Myitkyina dist., on the 30th Nov. 1900.

Hosp. Asst. J. P. S. Mullins made over, and Hosp. Asst. M. A. Aubaranam Pillay assumed, ch. of addnl. duties at the Civil Hosp., Kamaing, Myitkyina dist., on the 30th Nov. 1900.

Hosp. Asst. A. C. Banerjee relinquished ch. at the Outpost Hosp., Endawgyi, Myitkyina dist., on the 2nd Dec. 1900 and assumed ch. at the Police Hosp., Mogaung, on the 5th Dec. 1900 as a supy.

Hosp. Asst. A. C. Banerjee relinquished ch. of his duties at the Police Hosp., Mogaung, Myitkyina dist., on the 9th Dec. 1900 and assumed ch. of his duties with the Mogaung Escort on the same date.

NOTICES TO CORRESPONDENTS.

M. B. Carleton, M.D. (Subathu).—With reference to his letter elsewhere, writes:—"I wish it especially for my own sake, in the hope that I may get light from many on a subject that is daily confronting me, and the answers may be helpful to others situated as I am.

A leper man sees an attractive young leper woman in the asylum and wishes to marry her. I say "No." Very soon after both leave the asylum—of course not at the same time, or for the same reason. Before long, I hear they are living in some village as man and wife. After some months, may be, both again seek admission, and, of course, not at the same time, but some weeks apart, and denying all knowledge of each other. Very soon I find that the woman is expecting her confinement. Or parties forbidden to marry here go to asylums where they are allowed to marry, and return here years afterwards as husband and wife, and may be with a child or two. Under such circumstances, separation of husband and wife cannot be insisted upon. What is to be done?"

J. P. M. (Dhobra).—Examine the throat and larynx carefully for adenoids and report result.

S. J. (Birjana).—Paper received: will appear in a future issue.

M. S. (Loralai).—Your extract from the Baluchistan Gazette is published in this number.

A. B. C. (Hyderabad, Sind).—Try Marks, of America. See advertisement in back numbers of Record.

ORIGINAL ARTICLES.

THE BORDERLAND OF REASON.*

By G. W. BALFOUR, M.D., LL.D.,

*Consulting Physician to the Royal Infirmary, Edinburgh,
Physician-in-Ordinary to Her Majesty the Queen.*

LECTURE I.

THE famous divine, Dr. J. M. MASON, called the American PAUL, when asked to write an account of his travels, replied: "I write travels! I know not the nature of the air I breathe, the water I drink, or the land I travel over. I have lived solely for polemical divinity." Some similar idea crossed my mind when asked to lecture on *Insanity*. I have never been an inmate of an asylum for the insane, either as physician or patient, consequently my acquaintance with insanity is more or less that of an amateur, and not that of an expert. Still, in the course of many years spent in the practice of medicine, there come before us all an almost infinite variety of phases of mental activity, many of which are of considerable interest, both to the physician and the public, in their relation to true insanity. Some of these deviations from what we are pleased to call the mental norm are temporary, and others are more or less permanent in their character. They pervade every rank in life and every profession, and are found in connection with various morbid alterations of the organism, with the commencement of senile changes, chiefly those affecting the brain and at times with apparently perfect health. So common, indeed, are mental abnormalities, and so varied are their characteristics, that there is probably not one of us entirely free from some more or less insane peculiarity. So much, indeed, is this the case, that one old friend was in the habit of watching all his acquaintances for the revelation of their special characteristic, and he was never happy until he had discovered the point upon which each of his friends was—as he called it—insane; while, in their turn, his friends were in the habit of regarding this fixed idea as an incontestable proof of the insanity of their critic.

Many years ago I had a visit from one of the ablest and most learned men of his day, anxious to know how he could best arrest the pernicious habit of tight lacing in females, which had struck him as having become unusually prevalent, while he himself had suddenly become morbidly alive to the injurious results that might follow it. About a month later I had a long letter from the same gentleman, in deep distress on account of the number of very stout people he met in the streets, all of whom seemed perfectly unaware of the terrible risk they ran of having an apoplectic attack, and he was desirous of ascertaining what steps he could take to open the eyes of these unfortunates. This is a very interesting example of the manner in which senile changes may so influence a man of benevolent disposition as to cause him to take an undue and uncalled-for interest in the well-being of his fellow-men. It is not insanity, but it might very well lead to insane actions.

Fortunately, the gentleman referred to had sufficient prudence to take advice and sufficient wisdom to act upon the advice given. Upon another occasion an old lady suddenly inquired of me what was my idea of a soul? I replied that I was quite content to wait till I became a soul myself without concerning myself beforehand as to the probable characteristics of that entity. Upon this she assured me that her belief was that a soul resembled a luminous sheep's kidney floating through the air! Happening to mention this to a friend who was an adept in all spiritualistic learning, he replied that MARION CRAWFORD, the novelist, had once told him of a man who was born blind, and at the age of 20 had sight bestowed by a very simple operation. This man said he had a very definite idea of what he believed sight to be, but it was not the least like the real thing. "You and I," he added, "and the orthodox old lady, are all as incapable of forming an idea of a soul as that lad was of forming an idea of the charms of a landscape. My own idea is that a soul is a thing of the size and form of the human body, but made of something like air, quite imperceptible to our senses. This, of course, is nonsense, as it involves a dim idea of clothes—which is absurd—and also of eyes and ears; whereas a soul needs not, and has not, any eyes to see, or ears to hear, but has other and much higher means of perception. As to size, it is not omnipresent, and the old lady's kidney is as good as my human figure, which, among other inaccuracies, is based on an idea of the law of gravitation, which is inapplicable, and over which, to do the old lady justice, she had risen. Her idea of luminosity was a confusion of phenomena—the soul seems to have some power of directing forces invisible to us, especially electricity, a thing of which we can only perceive the effects; hence thought-transference, and hence the hallucinations, commonly called ghosts, which are what are called self-luminous apparitions, spirit-raps, etc., produced by action on the molecules of the brain. Hence, also, the statues made up of atoms too tenuous to be perceptible to us, but perceptible (like the stars only shown in astronomical photographs) to the higher sensitiveness of the photographic plate, whence what are called spirit-photographs, and also the more or less badly-made statues which are called materialisations, and which are so much commoner in America, where the atmosphere is so much more electrical than it is here." My old lady was a hard-headed old presbyterian, and her idea of the nature of a soul was evidently only a conceit thrown out for her own amusement and the entertainment of her friends. But you will note that it is quite otherwise with her critic. As, probably without putting much more faith in the idea than the old lady herself, he still reasons upon it as a possibility, and endeavours to point out wherein it differs from other so-called spiritualistic phenomena, and bases his objections to a soul being likened to a floating luminous kidney, not on any idea of its improbability, but on the fact that this conception is inconsistent with certain other spiritualistic phenomena which he has obviously studied with some care, and which have undoubtedly influenced his own idea of a soul. Evidently my friend would have rejected the old lady as an unsatisfactory medium, and yet her crude conception of a soul is quite within the

* The Morison Lectures for 1900. Delivered at the Royal College of Physicians of Edinburgh, and reproduced from the *Edinburgh Medical Journal* by request.

limits of sanity, while the specious and fallacious reasoning of her critic shows that on certain points he is—or rather, I am sorry to say, was—undoubtedly a denizen of borderland.

A good many years ago I came across two middle-aged ladies, who both asserted their belief that they were doomed to everlasting punishment. This belief was too much for one of these ladies. She could not stand the continual strain of such an ever-present terror, and consequently endeavoured to settle the matter definitely by attempting to put an end to herself, and was, very properly, promptly consigned to an asylum. The other took no such serious view. She played with the idea, and dangled it before her immediate relatives as an interesting horror to which she was about to be unjustly subjected. It was, however, a real belief, and led to prolonged insomnia; but she kept herself sane by widening her interests, and taking, as we might say, an intellectual view of the situation. She regarded her own unjust punishment as only one phase, and indeed, to do her justice, as a comparatively minor phase, of the gross injustice with which, in her opinion, the world was ruled. For two hours every forenoon she retired to her own room, and, as I understood, relieved her feelings by expressing in no measured terms her own idea of the state of matters. This condition lasted for years; yet during all this time this lady took her position in society. No one unaware of the facts would have noticed anything remarkable about her, while her strong sarcastic humour made her at times a most agreeable companion. This lady presented many other peculiarities. There were few clergymen of note whom she had not attempted to pose with the time-honoured problem as to the origin of evil—a problem, you may remember, to which even ROBINSON CRUSOE had no reply when FRIDAY asked him, "Why God not kill devil?" Her Bible was a remarkable object: one-half was completely expunged as entirely unworthy of belief; a large part of the remainder was shaded off as more or less worthy of further inquiry; while only a small part was left in its original clarity. Wandering all her life in the borderland, this lady has never crossed the boundary, and probably no one but her doctor and her own immediate friends had any idea of her peculiar mental condition. Some may perhaps be inclined to regard this as but an extreme case of hysteria. But there was no evidence of imperfect development of the higher nervous centres—rather the reverse—neither was there any indication of impairment of those highly complex nervous processes which form the physiological side of the moral faculties, such as underlie the phenomena of an ordinary case of hysteria. There were, indeed, not wanting signs of ordinary so-called hysteria as evinced by the presence of many more or less imaginary ailments which complicated the case. But the entire syndrome of the case, confirmed as it was by the family history, showed clearly enough that the patient was a denizen of the borderland, and nothing but watchful and loving care and a fortunate freedom from any serious bodily ailment, or any other form of impairment of nutrition, prevented her from crossing the border into the realm of true insanity. There are many such cases which, by a concatenation of fortunate circumstances, are able to be treated at home, just as

there are obstinate cases of true hysteria which are most readily cured by regarding them as insane and subjecting them to asylum treatment. For example, I was once asked to see a patient who, after a sharp attack of enteric fever, found bed so comfortable that she could not be persuaded to leave it; and as this necessitated the employment of a woman to attend upon her, she was a considerable expense to her parish. I found this woman well nourished, with healthy organs, and every muscle in her body responded normally to the stimulus of electricity. It was hopeless to attempt to treat such a patient in her own home, while no ordinary hospital could be persuaded to receive her. At some personal risk, therefore, I signed a certificate for her removal to an asylum, from which she was discharged cured in about a month.

Another patient was brought to me in a basket—this was long before the days of ambulances—and she had to be brought some distance. Her history was that she had not walked for ten years, and had not spoken for five. I daresay it has often happened to you, as it has to myself, when called upon to certify as to the mental condition of one hitherto a stranger, to be unable to get a reply to a single question, and to have nothing to notify bearing upon the case, from your own observation, beyond an obstinate taciturnity. Not one word is to be got out of the patient; while all the time of his examination he eyes his examiner with a malignant gleam of satisfaction. But, of itself, taciturnity is not insanity. I have known it regarded as a surgical disease, and treated by transfusion of blood. The operation was successful; but, unfortunately, no one could be found willing to part with his vital fluid except a foul-mouthed blacksmith, and the first word uttered was a bad one. I have not been able to discover what that word was, nor whether the bad language was permanent. Besides, a taciturnity that lasts five years is not likely to be associated with the excitable and unstable brain of a lunatic, though loss of language is common enough in association with cerebral disease, both in the insane and the sane. The patient I have referred to was obstinately taciturn, but she had no cerebral disease; she had plenty of ideas and words, too, which she poured forth copiously on paper, writing long letters, explaining her condition, and often suggesting treatment. In her own home she had been regarded as a suffering saint: and the clergymen who had been privileged to minister to her spiritual needs were in the habit of removing their shoes before entering her sacred apartment. As she was an entire stranger to me, I kept her for some time under observation before suggesting—which I did most emphatically—that so far from regarding her as a saint, I looked upon her as a modern example of demoniacal possession, adding that I had no doubt I would be able to exorcise her devil, and restore her to her proper position in society. This took some little time, no doubt; but it was so effectually done that she not only walked and talked like other people, but was ultimately happily married. I cannot say that I ever envied the husband, though they seemed always very happy together. There was in this woman an undercurrent of dry humour, which not only helped to keep her sane, but, I doubt not, made her ten years of

eclosion not only no punishment, but a perpetual source of quiet, though selfish, enjoyment.

Apart, however, from the many who live happily in the borderland, there are not a few who have done good and even great work in their day and generation, notwithstanding that, judged by an ordinary standard, they may be fairly regarded as having crossed the border, and as being quite insane on some one point or other. A well-known couplet has it—

"Great wits are sure to madness near allied,
And thin partitions do their bounds divide."

But this opinion did not originate with DRYDEN. It goes back, I believe, to the days of ARISTOTLE; and SENECA certainly puts it quite tersely and definitely when he says, "Nullum ingenium magnum absque dementia est." In my own experience, this idea has found its most apt illustration in cases of *folie circulaire*, in which the patient commences with an acute attack, and returns through a period of depression to a normal mental condition, these attacks recurring more or less frequently during life. An old friend of my own used to be subject to attacks of this character; when well, she was somewhat heavy and dull, but in her acute attacks she was a brilliant talker, and wrote most charming letters. As I had known her from childhood, we had many mutual acquaintances, and the manner in which she lit off the peculiarities of each, and detailed their private histories, was most amusing. She stuck fairly well to the truth, but sharpened the outline and heightened the colouring of each incident till the ordinary events of a commonplace life were invested with all the interest of a chapter of a sensational novel. It seems unlikely that either SENECA or DRYDEN had any thought of such a case when they penned the words I have just quoted, but rather that they referred to those many great men in all ages whose beliefs and whose actions have fairly entitled them to be reckoned among the number of the insane. Idiots, demented, and madmen are undoubtedly insane; but they have no monopoly of mental unsoundness, and the world at large has never recognised how much of its history and progress has been due to those who, judged by modern standards, may be regarded as truly insane.

Among all the great and noble characters of antiquity, there is none so pre-eminent as SOCRATES. A sculptor of no mean powers, the creator of many statues which have been much admired for the taste and elegance of their execution; a soldier of great activity and courage, two at least of his scholars—ALCIBIADES and XENOPHON—owed their lives to his martial prowess; and possessed of talents greater and more powerful than almost ever fall to the lot of man, he is best known as the founder of moral science. His whole life was spent in doing good, in constantly endeavouring to induce his fellow-men to curb their vicious propensities and desires, and to cultivate and improve their virtues. Both by precept and example, he commended to his fellow-men that dauntless serenity of mind which nothing could disturb or alarm. He divested the study of philosophy of its asperities and technicalities; and the dignity with which he applauded all things just and beneficial gave an

importance to his opinions which the purity of his character and the simplicity of his doctrines rendered doubly impressive. To enable men to form just opinions, and to make them happy, was the main object of his life; and he was little solicitous about his own fame, or any credit he might deserve as the founder of a new philosophy. His life was spent in promoting the best interests of his fellow-men; and it was laid down at their bidding, but not before he had with great firmness and energy disproved the false and unjust accusations which had been brought against him. Throughout all history there is no record of a nobler character than that of SOCRATES; and yet, judged by modern standards, it is impossible to avoid the conclusion that he was insane. SOCRATES had, as he believed, a genius or demon, whose voice he heard and whose advice he permitted to direct his actions. "By the favour of heaven," says SOCRATES in the pages of PLATO, "there has been bestowed upon me from my earliest youth the most marvellous gift of a spiritual voice—a voice which, when heard, often causes me to abandon what I designed to do, and never advises me wrongly. If any of my friends tells me of any project he has in hand, and the voice is heard, it is a sure sign that this design is not approved of, and ought to be given up." SOCRATES gives several striking examples of the nature of this warning, and of the results, according as the warning was attended to by his friends or the reverse. From these and many similar passages, it is evident that SOCRATES actually heard a voice that spoke to him and advised him according to his needs. He specially designates it as a voice, the voice, as it seemed to him, of a being other than himself which spoke to him, and not merely his own thoughts or his own conscience to which he had given the semblance of articulate speech. It seems in truth to have been a hallucination of the sense of hearing which SOCRATES regarded as the voice of a deity, and looked upon as his own special prerogative. He placed implicit confidence in the warnings conveyed by it, and nothing in this world could induce him to do what his demon had forbidden to be done.

Nor was this all. SOCRATES was also subject to fits of ecstasy or trance, which attacked him at sundry times without warning. Sometimes these seizures attacked him when conversing with his friends, and on one memorable occasion when among his fellow-soldiers at the siege of Potidea. Upon that occasion he passed a whole day and night standing in the open field in a state of ecstasy, regardless of the astonishment which his conduct excited among his fellow-soldiers, who camped about him all night to watch the end of this singular proceeding. SOCRATES did not recover consciousness till sunrise on the second morning, when, after a profound obeisance to that luminary, he stalked slowly and silently to his tent.

There is no reason to doubt that SOCRATES believed he heard a voice exterior to himself which he himself felt sure was that of a god or demon (genius). This voice distinctly uttered articulate words into his ear, and the communications so received were frequent, and were implicitly trusted. SOCRATES did not merely think he

heard a voice—that would be a hallucination of his reason. He actually heard a voice speaking loudly and distinctly, yet no mouth approached his ear and no vibrations reached his tympanum—this is to have a morbid hallucination of the organ of hearing. No one can believe that SOCRATES actually had communications from a supernatural being, and the only alternatives are either that he was an impostor who made an empty boast of his divine communications, or that he had a true hallucination to this effect. But SOCRATES was a man of the strictest probity, who devoted his whole life to the discharge of what he believed to be his duty, even though this led to his accepting the poisonous cup of hemlock juice. He was a man of noble thoughts and great power of will, and steadily pursued the object of his mission to an advanced period of life. No imposture could have been carried on so long without the mask being dropped now and then, and no one could have practised deceit for so long without being once and again discovered. Moreover, it is truth alone that gives force to speech, and it is impossible that SOCRATES could have exerted the powerful influence on his fellow-men which he did, if he had been a miserable impostor, playing upon the credulity of those around him. We are therefore forced to believe that SOCRATES actually heard the voice he supposed was sent for his guidance and direction. But as nothing really spoke—as no voice was sent—he must have been the dupe of a delusion that caused him to give wisdom and a body to words that sounded in his ear alone. This is to have a positive hallucination—a hallucination which in our day might have brought him under the cognisance of the Commissioners in Lunacy. And if we couple the supernatural voice with the remarkable fits of ecstasy or trance to which SOCRATES was subject, there is every reason to believe that a modern psychologist would have but little difficulty in assigning the affection from which SOCRATES suffered its proper place in psychological nosology. Even my own limited experience enables me to form what I think would prove to be a fairly accurate idea of the term he would apply; but inasmuch as this has never yet been formally propounded by any one, I refrain from mentioning it, lest my inexperience should land me in the category of those who rush in “where angels fear to tread.”

I have the less difficulty in making such a statement, because modern psychology has made great advances, and the diagnostic characteristics of many forms of mental aberration have been so accurately defined that, from the records of a fairly accurate biography, it is possible to form a retrospective yet correct estimate of the mental condition of its subject. Such an application of psychology to history is often sufficient to light up some of its most obscure passages, and to explain the origin of motives which, in a seemingly incomprehensible manner, have powerfully influenced mankind in various directions. It cannot be denied that insanity has exercised a most important influence upon the destinies of nations, as well as on their progress in philosophy, science, and literature. The presence of mental aberration is apt to be overlooked when it happens to coincide with the prevalent opinions or thought of the age, but, more closely regarded, it will often be found

associated with the greatest and most powerful talents, and to dominate the wills and thoughts of all with whom it comes in contact, not merely at the time, but for many generations. Of this, SOCRATES, the reformer of Greek philosophy, is a most striking example; and to take another from my own profession, I may mention VAN HELMONT, one of the greatest medical philosophers of the Middle Ages, whose name I dare say few of you have ever heard, yet the influence of whose thoughts was so great, that more than two hundred years after his death (in 1866), the Royal Academy of Medicine of Belgium offered a prize of 1,200 francs for the best estimate of VAN HELMONT'S influence on the progress of medicine down to modern times. VAN HELMONT was born in 1576, and, having devoted his life to study, he became, as one of his biographers has termed him, the Faust of the seventeenth century. He studied philosophy, law, and theology, but found them all but a weariness of the flesh. He refused the degree of Master of Arts on account of his own ignorance; also a Canonship, as he did not feel equal to the duties of such a position. At last, in despair, he prayed to be made what the Lord thought best, and was told in a dream that the Angel RAPHAEL would be always with him to guide and instruct him. After this he studied astrology, chemistry, and materia medica, beginning with Dioscorides and the herbalists, finally devoting thirty years to the study of all the medical words then extant. A thorough theosophist, he again prayed to be instructed, and took counsel with his own soul, which appeared to him as a small luminous body in human form. This wonderful being, to which his reason was but a subordinate handmaiden, as he was meditating on the horrible uncertainty of medicine, lifted up its right eyebrow and exhibited a wondrous eye, not composed of coats and humours like a human eye, but a brilliant globe like the planet Venus, which showed him not only his own deep ignorance, but also the error and darkness that prevailed around. Aghast at his own presumption in writing on a subject of which he really knew so little, VAN HELMONT was about to burn all he had written, when his soul opened its left eye, and showed that such an act would be a piece of the grossest selfishness, and he was warned and admonished in a dream that knowledge like a tree covered with blossom and fruits was the gift of the Almighty, and to be employed for the benefit of mankind. Relying on the help of the Angel RAPHAEL, and the advice and counsel of his own soul, he studied all the works on medicine then extant—some 600 in number—and devoted ten years to travel and the study of science and medicine in every available country. He was a most accomplished chemist, and among other discoveries in this science he first propounded the nature and properties of gases, and particularly those of carbonic acid gas. He was no great practitioner, yet his fame was so great that various potentates sought to allure him to their dominions. He emancipated himself from all the schools and prevalent theories of his day, and was the founder of a new and vitalistic theory of medicine, which modified, no doubt, and, with some changes in its terminology, has pervaded all medical science, and has proved its guiding principle down to the present day. VAN HELMONT'S Archeus was the *vis inertia*

of HALLER, the *vis medicatrix nature* of CULLEN, and has its analogue in the essential characteristics of the organic antitoxines of our own day. While as VAN HELMONT sometimes regarded and spoke of his Archeus as a ferment, from this point of view it naturally gets linked on to the views and theories of PASTEUR, and assimilated to the organic antitoxines on their chemical or materialistic side. From this we see that this Archeus of VAN HELMONT has a great future before it still, as the organic antitoxines have before them an as yet scarcely realised function to fulfil in the cure and still more in the prevention of disease. Perhaps the most learned man of his day, and one who cared for learning less for its own sake than for the good it enabled him to do, VAN HELMONT was an enthusiast, a fanatic, and above all things, a theosophist, but he was more—he was a dreamer of dreams, a companion of astrologers, of sorcerers, and of witches. He was full of delusions, and the victim of many hallucinations. He had many interviews with the Angel RAPHAEL, and his own soul, as a separate entity, was his teacher and instructor. From this point of view there are, I daresay, many inmates of asylums not half so insane. I know of one very intelligent and agreeable man, who had to be incarcerated solely because he avowed his determination to kill his wife on account of her High Church and Ritualistic proclivities. VAN HELMONT lived a long and honoured life, left many discoveries behind him, and, in spite of his insanity, his commanding genius has been so impressed upon the theory of medicine, that its influence is never likely to be lost. As the follies and vices of one generation are apt to result in evil to the succeeding one, as the evils of drunkenness are not always so evident in the drunkard himself as they afterwards become in the enfeebled nervous systems of his children, so it is interesting to note that VAN HELMONT's son was an exaggerated specimen of his father's peculiarities, without inheriting his remarkable brain-power.

It is a trite and often true saying, that *quem Deus vult perdere prius dementit*, but the converse is equally true, that when Providence has any great work to be done, He makes some one a little mad about it. Even in our own day we have had some remarkable examples of both truisms; and in past times, perhaps, the most remarkable instance of that madness which precedes and accompanies the accomplishment of great and notable deeds is to be found in the history of JOAN OF ARC. In the beginning of the fifteenth century the whole of France, north of the Loire, was in the hands of the English; in 1430, HENRY VI was crowned at Paris king of France and England, and everything pointed to the speedy expulsion of the DAUPHIN, son of CHARLES VI of France, from the southern part of his dominions, of which he still had a precarious hold, when suddenly the victorious advance of the English was checked; they were ultimately driven from all their French possessions, except the city of Calais, and CHARLES VII was crowned king of France, all by the instrumentality of a peasant girl of 18 years of age. This is probably one of the most remarkable episodes in history, and the agency by which it was brought about was even more remarkable than the episode itself, because the whole incident belongs so entirely to the unexpected that it seems quite inexplicable

on ordinary principles. It was not an example of the compassion natural to the sex leading to unparalleled self-sacrifice for the protection of the unfortunate, as in the case of FLORA MACDONALD. It was an unheard-of and almost incredible instance of a girl, still in her teens, casting aside the trammels of sex, and leading to victory a beaten and discouraged army under the influence of what she believed to be divine guidance. Here was an age, no doubt, in which such a belief was more than usually possible, and JOAN's history is but another example of the presence of insanity being overlooked, because its manifestations happen to coincide with the prevalent ideas of the day. JOAN OF ARC was born in a small village in the north-west of France; she was taught to sew and spin, but not to read or write, and was distinguished for her modesty, simplicity, and piety. It so happened that the village in which JOAN was born took the side of the French, while a neighbouring village espoused that of the Burgundians, the allies of the English. The boys of the two villages had daily conflicts, so that from her earliest childhood the opposing battle-cries of France and England were for ever sounding in JOAN's ears; while an imaginative child, such as she was, could not fail to be impressed by the talk of her elders as to the down-trodden state of her beloved France, and the feelings thus roused could not fail to be still more strongly excited by her friends and companions having, on one occasion, temporarily to flee for their lives from their homes, not getting back for four days. It was small wonder, then, that the voice, which in her 13th year urged her to be modest and pious, gradually became more insistent and more definite as to what she was to do. Wherever she went the voices followed her, and mingled specially with the church bells' chiming. JOAN's hallucinations were not of hearing alone; she never heard a voice without also seeing a bright light—both came on the right side. When walking in the woods, JOAN heard voices around her, and when listening to the ringing of bells, the voices of saints and angels mingled with their chimes. Gradually her delusions extended to other senses; she saw the Angel MICHAEL, ST. CATHERINE, and ST. MARGARET; these saints she embraced and kissed, and found they had a pleasant odour. Gradually, too, the voice which at first spoke only of modesty and piety urged her to hitherto undreamt of acts. "Go," it said, "daughter of God, go, go, go; and I shall be with you to help you—go." This injunction was but indefinite, but it showed how the heaven was working, and ere long the voice became more insistent and more definite. "JOAN," it said, "the King of Heaven has selected you for the succour of France and the help and protection of King CHARLES." As the tide of war rolled on, the prolonged siege of Orleans kept all France in a state of continual excitement, and JOAN's voice became more insistent and more definite in its instructions. "Go," it said, "to ROBERT of Baudricourt, the Commandant at Vaucouleurs, he will help you." At first ROBERT of Baudricourt was incredulous as to her mission and amused at her simplicity. But the people took her part, bought her a horse, and provided her with male attire. At last her insistence prevailed, and ROBERT of Baudricourt sent her with an escort to the Dauphin at

Chinon. We can imagine the astonishment of the Dauphin when this girl of 18, dressed as a man, came before him with the statement that she had a mission from Heaven to relieve Orleans, and to crown him king of France. The Dauphin naturally hesitated; he kept JOAN about the court for some weeks, and had her examined by theologians, and her conduct watched by all the hangers-on about the court. But JOAN stood the test. At court she remained the same simple-minded, devout, and modest girl she had always been. From the priests of St. CATHERINE of Fierbois she received a sword marked with five crosses on the blade, which, she said, her voices had revealed to her was hidden underground near the high altar. Clad in complete armour, mounted on a white horse, with a white banner carried before her, on which were painted the likeness of Our Lady with two angels, each having a lily in her hand, JOAN entered Orleans at the head of an armed array of noblemen and men of war. The English feared her as a witch, and did not dare to oppose her; the citizens of Orleans received her as if she were the Deity Himself. Three of the English forts were shortly carried by assault, and within ten days the siege was raised, and the enemy in full retreat. It must have been a most remarkable sight to see this simple maid not only leading her troops to battle and ordering their whole array as if she had been all her life a soldier, but also taking the lead at the council table, and pitting her miraculous voices against the opinions of such able and experienced Generals as DUNCIS, the Bastard of Orleans, ALENCON, and LA HIRE. It is unnecessary to pursue the subject further. Taught by her miraculous voices, and aided by her own unquestionable genius, this girl of 18 dropped the garb of a simple village maid, and, clad in all the panoply of war, sat at the head of the council table or led her troops to battle as if she had been to the manner born. CHARLES VII was crowned king of France at Rheims, and JOAN wished to return to her village home, deeming her mission accomplished. At the king's request, JOAN consented to remain with the army; but apparently her heavenly directions ceased. She no longer heard unearthly voices, and she began to have fearful forebodings. In no long time she was taken prisoner by the Burgundians and sold to the English, and after trial and nearly a year's imprisonment, JOAN was burned at the stake as a sorceress and a heretic. It seems that in prison her spiritual voices returned, but they no longer urged her to doughty deeds or spoke of triumph and victory. The voices promised that she would be set free from prison, but they never mentioned how, and urged her to "take everything cheerfully," promising that after her martyrdom she would "come at last to the kingdom of heaven."

Her compatriots never spoke of JOAN as insane, and her history but affords another example of how readily insanity gets overlooked when its manifestations happen to coincide with the spirit of the age. But there is no doubt as to her delusions and hallucinations. To the last she maintained the reality of her revelations, and she died a martyr to her convictions.

The story of JOAN OF ARC is a most remarkable one; it affords a very striking example of the influence of

delusions upon an excitable temperament, of the fact that hallucinations are often associated with an indomitable will and with considerable strength of intellect, and it is a remarkable instance of the manner in which insanity has moulded history and influenced the fate of nations.

But perhaps the most notable example of the influence of insane delusions upon the history of the world is to be found in the story of MOHAMMED and of the religion which he founded—a religion which, at the present day, numbers among its votaries over 160 millions, or about one-ninth of the entire population of the world. MOHAMMED has been stigmatised as a prophet of deceit, and the religion which he founded has been derided as a suggestion of the devil, and though insanity has been occasionally spoken of in connection with MOHAMMED, yet it has never been received as an adequate explanation of his conduct or procedure; and one of those who have most recently written of him—one, too, who by his training and studies ought to be a most competent judge—distinctly says: "I cannot call him insane." Nevertheless I venture to differ from this opinion, and to say that MOHAMMED was even more unmistakably insane than JOAN OF ARC, and that the religion which he founded was the product of his insanity, modified by his own commanding intellect and by the spirit of the age in which he lived. MOHAMMED was born towards the end of the seventh century, at a time when, under the influence of Judaism on the one hand, and of Christianity on the other, the ancient pagan creeds were fast crumbling away. Paganism in all its forms may indeed be said by that time to have ceased to be a living faith, and was only clung to by the people as a sacred inheritance from their forefathers. Already there were many prophets in the field who proclaimed the futility of the ancient pagan creeds, and who taught the unity of God, the religion of ABRAHAM. Some sought to combine the more noble forms of paganism, such as the worship of the heavenly bodies, with this purer doctrine; while others turned aside to Judaism on the one hand, or to Christianity on the other. MOHAMMED was a true child of his time, influenced more or less unconsciously by the many contradictory views which all his life had been seething around him. He was 40 years of age before he took up the role of a prophet himself, and sought to find a new faith which should take the place of idolatry, and yet be distinct from either Judaism or Christianity, and in this his delusions and hallucinations undoubtedly aided him, if they did not, as is probable, primarily start him on his quest for a new religion.

Ordinary epileptics are not generally very interesting subjects; so far from being associated with any manifestation of genius, the intellect, under the influence of repeated attacks, tends to become rapidly debased.

But there are some epileptics who retain all their faculties apparently unimpaired, notwithstanding the persistence of epileptic attacks from early youth, and in some cases in spite of the occurrence of repeated maniacal attacks. For we know that an epileptic attack is occasionally replaced by an outburst of mania, which may last for some time, or be as sudden, as violent, and as evanescent as a fit of epilepsy itself.

While there are many whose faculties remain unimpaired by the obdurance of epilepsy, there are few who, at all events during its early stages, develop a peculiar aptitude for certain forms of learning or of work, though commonly this special intellectual sharpening too long disappears under the degrading influence of the disease. I myself was well acquainted with one lad who developed quite a genius for the solution of arithmetical problems, and also for making patterns for fretwork, in neither of which was he any ways proficient in his pre-epileptic days, and they were gradually lost in the progress of the disease. The morbid religiosity of epileptics forms a well-known element in the syndrome of the disease. It is the one form of disease in which exaltation of the religious sentiments is most frequently observed, associated with a marked laxity of morals. But apart from this morbid religiosity, we often find epilepsy associated with hallucinations of various kinds, affecting sometimes the sight alone, and sometimes the hearing alone, and sometimes both sight and hearing. You all, no doubt, remember Dr. JAMES GREGORY'S patient, in whom the epileptic aura was replaced by the figure of a little old woman in a red cloak, who seemed to walk up to him and strike him down with her crutch. About the middle of this century, the late Professor ALISON began to suffer from severe epileptic attacks. These seizures were followed by delirium of a very violent and acutely maniacal character, but during the fits he seemed lost in the contemplation of some blessed vision; he thought he was in Elysium, and he believed he heard the praises of the heavenly host, and amongst them he heard the voices of many long-lost friends whom he recognised and with whom he conversed; so that it was a matter of regret to him when he recovered consciousness of the external world. These remarkable attacks were thus accompanied by hallucinations of sight and hearing, of the reality of which ALISON at the time entertained no doubt, and they were followed by acute maniacal attacks, during which he was undoubtedly, though only temporarily, insane.

Now we learn from the history of MOHAMMED that he was epileptic from childhood; as in other epileptics, the fits were often followed by periods of prolonged unconsciousness, during which he had hallucinations of sight and hearing. He saw the Angel GABRIEL, who conversed with him, and who, he believed, revealed to him sentence by sentence the contents of his sacred book, the Koran, which contains regulations for both the civil and religious life of his followers, while even the pleasures promised them in the next world were evidently dictated by the impulses so distinctive of epileptic religiosity. There can be little doubt that MOHAMMED was insane, and as ALISON'S insanity bore the impress of a highly educated and deeply religious Christian, so that of MOHAMMED is distinctly stamped with the spirit of the age in which he lived, when all around him there were prophets and leaders of men seeking to turn the hearts of mankind from the old polytheism which was crumbling away, to a purer monotheistic religion. MOHAMMED'S wife and some of his relations, to whom he had revealed his earlier hallucinations, encouraged him in the belief that he was favoured of Heaven, and set apart as the prophet of a new religion, which, though modelled

on the monotheistic doctrines of the age, was distinctly modified by his own powerful and practical intellect. More than 1200 years have passed away since the death of MOHAMMED, yet the religion which he founded is still a living faith to more than one-ninth of the population of the world; and if we acknowledge that MOHAMMED was insane—and I do not see how we can avoid this conclusion—then we must also acknowledge that the prevalence of Mohammedanism affords one of the most remarkable instances of the manner in which insanity has modified the kingdoms of this world and has influenced the progress of humanity.

Thus far I have endeavoured by selected examples to show how much mankind has been indebted for its progress in philosophy and science to those who—if not actually insane—have certainly been dwellers in the borderland of insanity, while a similar influence has had most important results in the domains both of arms and of religion. If we turn now to the realm of letters, we shall also find that some of the noblest works in literature have been produced by those who have all their lives dwelt in the borderland, while some of the noblest conceptions of the human mind have been scrawled by a madman on the walls of a madhouse. In seeking for examples illustrative of the influence of this peculiar phase of mentality upon human progress as revealed in literature, we are met by a perfect *embarras de richesses*—more so, perhaps, than in any other department of human knowledge; probably because all literature is the product of individualisation, and no one can individualise his thoughts without at the same time exaggerating their peculiarities. I have been more struck with this in the literature of psychology than in that of any other subject, and I am inclined to attribute this marked character in psychological literature to the influence of environment, so well known as one of the most important agents in modifying the development both of mind and body. I shall not, however, pursue the subject farther in this direction, nor shall I be tempted by any modern illustrations, but shall at once carry you back a couple of hundred years to JONATHAN SWIFT, Dean of St. Patrick's Cathedral, Dublin, the greatest of English satirists and the most original writer of his day. It is surely a splendid triumph of genius that "GULLIVER'S Travels," written as satires to excite and gratify the political feelings of men, should 200 years later still survive and be loved as the most delightful of fairy tales by the children of their descendants. SWIFT'S "Tale of a Tub" was one of the most powerful religious satires of the eighteenth or of any other century. His "Drapier Letters" caused the Government of the day to give up their purpose of flooding Ireland with the copper coinage of an English patentee, and created so great an excitement in Ireland as to raise the unknown author to the pinnacle of fame. Two rewards of £300 each were offered to any one who would unmask the author of these letters; but the secret was well kept, and not a traitor could be found to sell him. Not to be prolix, I will only mention one more of SWIFT'S writings, his "Modest Proposal," in which he suggests that the distress of the poorer Irish might be relieved by employing their children as food for the rich, and which is a perfect masterpiece of satirical irony.

SWIFT died at the age of 78, and the last three years of his life were passed in almost total silence and in the charge of keepers. One of his biographers suggests that the cerebral disease of which SWIFT died, and which ended in complete dementia, must have lasted for fifty-five years, and there is some reason to think that this estimate is not far wrong. SWIFT was deaf, and was subject to attacks of giddiness, and a comparatively recent writer has claimed that the cerebral degeneration which was ultimately fatal was an extension from the peripheral disease of his ear. I am not aware that modern pathology would sanction any such assumption. SWIFT himself had a clearer conception of the nature of his disease, when, pointing to the withered boughs of a decaying elm, he said to his companion, Dr. YOUNG—"Like that, I shall die at the top." His disease was no doubt peripheral; but it affected the periphery of the brain, and did not originate in any other organ. All his life SWIFT was liable to severe—almost maniacal—paroxysms of temper, which doubtless were early indications of that degeneration which ultimately ended in complete dementia. This tragic close, to which SWIFT so pathetically alluded, seems to have shadowed all his life; he was subject to fits of maniacal excitement, alternated by periods of intense mental depression, estrangement from his friends, increasing giddiness, and a tottering gait, gradual loss of vision, loss of memory for words, and ultimately total silence. I have not touched upon SWIFT'S relations with STELLA and with VANESSA; the mystery in which these relations are involved is indubitably connected with SWIFT'S mental malady; but its elucidation necessitates too minute and searching an inquiry to be entered upon now. It is enough for my present purpose if I have succeeded in showing that one of the greatest literary geniuses of our country was all his life a denizen of the borderland, and had formally crossed the border years before he ceased to be mortal.

SWIFT was a poet, but rather mediocre; it is as a satirist that he will live. On the other hand, WILLIAM COWPER was a great prose writer, and his letters are amongst the most charming compositions in the English language; but it is as a poet that his name will descend to generations yet unborn. For who can imagine a time when the infant mind will cease to be amused by the adventures of "JOHN GILPIN," or the patriotism of the schoolboy fail to be roused by the words of the dying Boadicea—

"Regions Cæsar never new
My posterity shall sway;
Where his eagles never flew,
None invincible as they?"

poems not of the very highest or most philosophic stamp, but which appeal at once to the sense of humour and of patriotism innate in every human breast. Simple and natural, COWPER'S poems were a great change from the stilted language and far-fetched imagery of his predecessors, and it was these very qualities which won their way into the hearts of all when they were first published, and has kept them afloat upon the stream of time for more than one hundred years. It is not the fashion to read COWPER now-a-days, but quotations from his poems are more in use than from any other author

except SHAKESPEARE. His hymns have exercised a greater influence upon evangelical religious life than those of any other hymn-writer save JOHN WESLEY; and probably more tears have been shed over his lines, "On the receipt of my Mother's Portrait," than over any other poem in the English language. COWPER'S longer and more didactic poems are full of graphic pictures of simple country life and habits as they existed last century, coupled with moral and religious reflections of the highest character, seasoned with the Attic salt of fervid satire. Last century COWPER was regarded as one of the greatest poets of the day, and no one can deny that he occupies even yet a very high place in English literature, and yet all his life COWPER was a dweller in the borderland.

A delicate, sensitive boy, COWPER had the misfortune to lose his mother when only a child of six; his school life was embittered by the tyranny of his class-fellows, and a deeper melancholy was impressed upon his timid diffidence. At 21, COWPER was called to the Bar, but never practised. He was ultimately offered the office of Clerk of the Journals of the House of Lords. But he shrank from the needful examination at the Bar of the House as well as from the publicity of the office. At this time his misery was so great that he thrice attempted suicide, and had to be placed in seclusion for about a couple of years. Throughout the most of his after-life COWPER enjoyed—thanks to the kind attention and cheering influences of many friends—a measure of tranquil happiness, though at the age of 40 he had a second period of five years of the deepest melancholy, from which he again recovered. It was after this recovery that COWPER published the first volume of his poems; it is known that many of his hymns and minor pieces were written when he was in a state of the deepest dejection, and it is highly probable that many of his longer pieces were being thought out, if not actually composed, when he was still in confinement. On the death of his kind friend, Mrs. URWIN, COWPER fell into a state of the most profound melancholy, and though he kept his ailment at bay by continuing his translation of HOMER, and otherwise employing his poetical talents, he died seven years later, protesting at the last that he was plunged in "unutterable despair." A very striking example of how much the world owes in its literature to those whom it stigmatises as insane. I need not multiply examples, they are easy to be found, and as common as blackberries. I shall only give one more, and that chiefly for the sake of the remarkable contrast between the nobility of the thoughts expressed and the circumstances under which they were produced.

CHRISTOPHER SMART, well known as a translator of HOSACK and as the winner of the Seatonian prize at Cambridge, during five successive years, was a Fellow of Pembroke College, Cambridge, but closed this connection by marrying. This necessitated his removal to London, where he became a friend of GARRICK and of JOHNSON, but with all his talents and all his exertions he failed to keep poverty from the door. The tendency to depression, present throughout his whole career, was aggravated by disappointment and debt, and SMART was first placed within the rules of King's Bench, and ultimately in an asylum, where he died.

On the wall of his asylum, SMART, with a bit of charcoal, scrawled the following noble thoughts, forming part of his "Song of David":—

"He sang of God, the mighty Source
Of all things, the stupendous Force
On which all strength depends:
From whose right arm, beneath whose eye
All period, power, and enterprise
Commences, reigns, and ends."

The world, the clustering spheres He made,
The glorious light, the soothing shade,
Dale, campaign, grove, and hill,
The multitudinous abyss,
Where Secrecy remains in bliss,
And Wisdom hides her skill.
'Tell them I AM,' Jehovah said
To Moses; whilst earth heard in dread,
And smitten to the heart,
At once above, beneath, around,
All Nature, without voice or sound
Replied, 'O Lord, Thou art!'

I think I have given you a sufficient number of examples to show that in every department of human progress—in philosophy, science, arts and literature—insanity has exercised a most important influence, and we are now entitled to ask, has this remarkable effect been produced by the insanity, or has the apparent coincidence been purely accidental?

Now this is too interesting and in many ways too important a subject to be rashly dogmatized upon, and there is much to be said from both points of view. First, we cannot forget what ABERCROMBIE has said:—

"A remarkable peculiarity, in many cases of insanity, is a great activity of mind and rapidity of conception—a tendency to seize rapidly upon incidental or partial relations of things, and often a fertility of imagination, which changes the character of the mind, sometimes without remarkably distorting it. The memory in such cases is entire, and even appears more ready than in health; and old associations are called up with a rapidity quite unknown to the individual in his sound state of mind. A gentleman, mentioned by Dr. WILLIS, who was liable to periodic attacks of insanity, said that he expected the paroxysms with impatience, because he enjoyed during them a high degree of pleasure. 'Everything appeared easy to me. No obstacles presented themselves, either in theory or practice. My memory acquired, all of a sudden, singular degree of perfection. Long passages of Latin authors occurred to my mind. In general, I have great difficulty in finding rhythmical terminations, but then I could write verse with as great facility as prose.' 'I have often,' says PINEL, 'stopped at the chamber door of a literary gentleman, who during his paroxysms appears to soar above the mediocrity of intellect that was familiar to him, solely to admire his newly acquired powers of eloquence. He declaimed upon the subject of the revolution with all the force, the dignity, and the purity of language that this very interesting subject could admit of. At other times he was a man of very ordinary abilities.' And, secondly, we must not forget that as mental influence alone is of itself sufficient to give rise to stigmata and to other morbid affections, especially in a certain class of patients, so the general prevalence of any special excitement, such as the English invasion of France in the days of JOAN OF ARC, or the religious transition of the days of MOHAMMED, may give rise to special forms of cerebral excitement quite apart from the presence of insanity, but which may also be variously modified by the co-existence of special delusions.

A MIRROR OF PRACTICE.

A SECOND SUCCESSFUL CASE OF CÆSAREAN HYSTERECTOMY.*

By COLIN CAMPBELL, L.R.C.P.L., M.B.C.S., ENG.,
Saddleworth.

History of Patient.—On July 25th, 1900, I was called about 1 P.M. to see a woman in labour in a gipsy van. The labour had commenced about "daybreak."

The woman, aged 24, was about 4 feet in height. Her mother said she had been "deformed all her life." It was her second pregnancy, the previous one having been terminated by craniotomy at Halifax "about" a year before.

Examination revealed a pseudo-malecostean rachitic pelvis, also that the child was living. I therefore advised its immediate removal by abdominal section, and that the patient should be at once removed to a room, as in the van the bed was only approachable on one side, and one could not stand nearly erect. (2) That if they declined removal and operation, that she should be immediately taken to an infirmary, Oldham and Ashton being respectively five and six miles distant.

After much delay the former alternative was chosen, and at 5 P.M. I was informed that a good Samaritan had taken her in, making a bedroom of her "parlour," which opened directly on the road. I saw the patient again at 6 P.M. with my partner, Dr. DAVID PRICE, equipped for any emergency.

Selection of Operation.—In such a case, supposing the child to be living, the alternatives before the practitioner are:—

- (1) Killing the child by the brutal "operation" of craniotomy.
- (2) Ordinary CÆSAREAN section.
- (3) PORRO's operation.
- (4) Symphysiotomy.

(1) As the child was still living, we rejected the first alternative. Personally, I can see little difference between plunging a perforator into the brain of a living fetus *in utero* and plunging it into the brain of a child hidden under the bed clothes.

(2) Except in the able hands of MURDOCH CAMERON or LEOPOLD, CÆSAREAN section has still a terribly high mortality, and successful cases leave the patient liable to further pregnancies—and "sections!" This is not ideal.

(4) As to the merits or demerits of SINGULTIAN operation, we did not enter, rejecting it at once in favour of—

(3) A modified PORRO's operation, in which both child and uterus are removed, and further pregnancies (and operations) effectually prevented. In PORRO's operation the procedure is, shortly, as follows:—

To cut down first through the linea alba, next through the anterior wall of the uterus, "avoiding, if possible, the placenta," next the fetus is removed. "Hæmorrhage from the uterine wound may be checked by grasping the

* Read at a meeting of the Lancashire and Cheshire Branch of the British Medical Association.

cut edges with pressure forceps, having large transverse blades.....The uterus is drawn through the abdominal wall, the intestines being kept back by an assistant, and covered with large flat sponges..... and then a KÖEBERLE'S *serre-nœud* is passed round the lower part of the uterus." This is tightened, and the stump fixed in the abdominal incision by means of transverse pins.

The modification of this operation adopted by the late Mr. LAWSON TAIT appears to me to be of more practical importance than the original design. He so simplified the procedure as to render it practicable, at a moment's notice, by any surgeon who has at hand a knife, a piece of stout rubber tubing, and two knitting needles; by his method it is also a bloodless operation.

In PORRO'S operation an assistant (as well as an anaesthetist) is required to check the hæmorrhage and work the sponges; large flat sponges should be at hand, also a supply of transverse-bladed forceps, and that somewhat cumbersome instrument, the *serre-nœud*. The control of the hæmorrhage from both sides of the uterine incision, as well as from a possibly wounded placenta, suggests considerable difficulty.

Mr. TAIT ligatured the uterus before opening it. This was done by passing a loop of strong rubber tubing over the fundus, then drawing the tubing down to the lower part, and tightening it as an ESMARCH'S bandage. Thus performed, neither assistants nor unusual instruments are required.

In anticipating a similar, and also successful, operation, my friend, Dr. JOHN SUTCLIFFE (now of Cheadle Royal) suggested that the loop of tubing which was intended to pass over the fundus would be more manageable if stiffened, and this was found to be so; for whilst it was impossible to get the limp tubing over the fundus through an incision which extended upwards only as far as the umbilicus, it was easily done when a piece of gutta-percha-covered wire was first passed through.

The operation was performed under the most unfavourable conditions; the room was small, dark, and crowded with furniture; no nurse or handy woman was available, only a neighbour who had once "seen an operation." The patient had become irritable and restless, her pains were continuous, pulse 128, temperature 100°. My partner's whole time was occupied in looking after the anaesthesia. The abdominal incision was four inches in length downwards from the umbilicus; through this the tube, stiffened as described, was passed over the fundus, and then drawn down as low as possible, the wire drawn out, and the tube tightened and knotted. Then the uterus was opened without hæmorrhage, and the left hand introduced to push aside the placenta and find a foot. This was found with some difficulty, and a living infant delivered. Next the uterus with placenta enclosed were drawn out, coils of gauze being introduced to prevent fistulae following, and the only assistance that was required by the operator was the "neighbours" to hold up the uterus whilst it was being transfixed with guarded pins and amputated. Four sutures closed the abdominal wound, the "stump" filling quite one-third of its length.

After History.—On the third day the temperature reached 102°; then, after a dose of Epsom salts, it became normal. The stump came away on August 21st. I exhibit it to show the effect of the elastic ligature. I regret I am unable to show the patient and infant.

The woman was walking about by the fifth week, and they then left the district. I have had the help of the police and the "King of the Gipsies," but the scent was lost at Blackburn.

In conclusion, I would express the hope that two successes so easily obtained may (in the words of Dr. HERMAN) help "to relegate craniotomy, the induction of premature labour, and symphysiotomy, alike to the past."

USEFUL HEARING OBTAINED IN A DEAF MUTE, AGED 19 YEARS.

By J. LOCKHART GIBSON, M.D., EDIN., M.R.C.S., Eng.,

Brisbane, Q.

THIS case, a girl now of twenty years, illustrates the importance of not concluding too readily that a deaf mute, with some hints that hearing has not been absolutely destroyed without hope of repair, should be left severely alone. It also illustrates a point regarding lymphoid hypertrophies in the nasopharynx, upon which I have insisted in more than one paper, viz., that comparatively small hypertrophies in the fossæ of Rosenmüller are apt to do more harm to the hearing than much larger ones in the general nasopharyngeal space.

MARION SHAW, aged 19 years, was brought to me from the Brisbane Blind, Deaf and Dumb Institute on June 3rd, 1899.

History on that date.—She has been an inmate of the institution for six years. Her parents say that she could hear as a baby, and had begun to talk a little before contracting measles at the age of 18 months. She had not talked since until taught lip-reading. The teacher says that her hearing helps a little in teaching, when an ear-trumpet is used, or sounds are spoken loudly just behind the ear. For all practical purposes, she is deaf and dumb. Breathes heavily, if a cold.

Examination.—Membranes very opaque and indrawn. Fork, well by bones if very loudly sounded, heard in each ear, by air conduction. Nasopharynx, found a dense band of hypertrophy in each Rosenmüller, and that between these bands and a central small roof mass of adenoids there was a sulcus in each case.

June 29th, 1899.—Removed, under cocaine, a dense piece of hypertrophy from right Rosenmüller, and a somewhat larger piece from left Rosenmüller. Two solid fillets of LOWENBERG'S forceps from the roof of the nasopharynx.

July 10th.—Mother says, hearing things about the house and dogs barking, which she had not heard previously.

July 17th.—Removed another small piece from left Rosenmüller, and four or five small pieces from the nasopharyngeal roof.

July 27th.—Calls all the family by name, hears dogs barking, knocks at the door, and rain pattering upon

the roof. In my room hears her own name quite plainly at a few inches from her right ear, and numbers at two feet.

Since removing her "adenoids," I have regularly politerised her ears. She has had comparatively little teaching since, and not much training to the ears; but, at her own home, her mother and sister tell me that she hears a great deal and can always be called even from one room to another (wooden house). Of course she had learnt lip-reading, and any words said to test her hearing must be said behind her back, or with the mouth hidden. Her articulation is still very imperfect—sufficiently so, indeed, to prove to you that she has been a deaf mute. The number of words that she has been taught by sound is small. She has to learn her sound vocabulary like a child. Still, you will notice that she hears enough for us to hope, as her teacher does, that she will in time be able to depend more and more upon her ears, and less and less upon lip-reading in conversation. Her own name and accustomed words, such as "Good-bye!" and numbers, she hears at long distances, several yards, and repeats at once. Short sentences, such as "How are you?" and "Are you quite well?" she hears at a few feet, when spoken distinctly, in an ordinary voice, and repeats them.

A second somewhat similar case, and under treatment at present, a girl of 15 years, has obtained some hearing, but not so much as MARION SHAW.

ERYTHEMATOUS RASH DUE TO BORIC ACID.

By HENRY HANDFORD, M.D., F.R.C.P.,

Physician to the General Hospital, Nottingham.

MUCH attention is being devoted at the present time to the effects of boric or boracic acid, and the opinions expressed by capable observers vary exceedingly. The following case, therefore, may be of some value, although the fact that the ingestion of boric acid is liable to produce a skin rash is already well known:—

On April 18th, G.B., aged 47, a coal-miner of Clay Cross, was admitted into the Nottingham General Hospital under my care with dilatation of the stomach. He had suffered from dyspeptic symptoms for three years, but vomiting only began fourteen months before admission. He had lost flesh and strength considerably, and been unable to work for some time. For three months and a half before admission, the stomach had been washed out frequently, but without much benefit.

A non-malignant stricture of the pylorus was diagnosed, but before advising surgical treatment, it was determined to give a further trial to washing out the stomach with some suitable antiseptic, as the previous washing out had been mainly carried out by the patient himself, although under medical advice. There are not a great number of efficient antiseptics which can safely be used in large amount for this purpose; and boric acid lotion 1 in 80 was selected as the most suitable. The stomach would hold $4\frac{1}{2}$ pints of fluid before the patient felt uncomfortably distended; but much less than this quantity was used for each washing out. The stomach was first emptied of its contents by a tube as far as possible. Then about $2\frac{1}{2}$ pints of warm boric acid solution were introduced, allowed to remain two or three minutes, and returned by the siphon action of the tube. This was repeated two or three times until the fluid returned nearly clear, and the stomach left as nearly empty as is possible under these conditions.

The washing out was continued from April 19th to 25th, on which day an erythematous rash appeared upon the face and back. The skin was reddened, swollen, and thickened in broad patches, and there was much itching.

Plain water was substituted for boric acid solution for washing out the stomach, and the rash disappeared in two days. From April 27th to April 30th boric acid solution of a strength of 1 in 200 was used. On the morning of April 29th there was a little redness on the elbows, and by April 30th the erythema had spread to the back of the neck, eyelids, lower part of the back, and thighs. The use of boric acid was stopped, and the rash entirely disappeared by the morning of May 3rd.

The patient stated that he had not before suffered from a similar or, indeed, any rash, although the stomach had been washed out frequently for three months and a half previously, but without the employment of boric acid. He was kept under observation for another week without the recurrence of the erythema, and then transferred to the surgical wards on May 10th.

On the following day the abdomen was opened by my surgical colleague, Mr. ANDERSON. The pylorus was found to be greatly thickened and somewhat fixed by adhesions, but there was no definite tumour. The operation of pyloroplasty was performed and the stricture completely relieved. The patient made an uninterrupted recovery and rapidly regained weight. He is now (November 15th, 1900) in good health and working regularly as a miner.

TRAUMATIC URETHRAL STRICTURE: INCONTINENCE: URETHROTOMY: CURE.

By T. M. SHAH, L.M.,

Medical Officer, Junagadh State Hospital.

13th April 1900.—PREMI M., male, aged 30, was admitted with incontinence of urine. It was dropping away involuntarily, the clothes were soiled, the bladder was empty, that is, there was no overflowing.

In the middle of penis there was a nodular induration. The urethra was impervious to the smallest catheter at this point.

Patient received a kick from a horse at his penis two months ago, much swelling and inflammation resulted, and blood was passed with urine, and incontinence and stricture were the consequences.

15th.—Chloroform was administered, longitudinal incision was made on the under surface of penis at the seat of induration, stricture divided and urethra was laid open. Catheter No. 8 was then passed through meatus into bladder. Then the urethral margins were brought together by horse-hair sutures, and next sutures were applied to skin. Iodoform lint and adhesive strapping applied.

17th.—Urine voided by catheter, few drops through wound, swelling of penis owing to tightness of dressing.

23rd.—Sutures gave way, sides gaping, urine passed through wound and also through catheter.

24th.—Silver catheter removed: india-rubber catheter kept in.

27th.—Wound contracting and healing: all urine per catheter.

30th.—Wound healing: all urine through urethral meatus: urine passed voluntarily.

2nd May.—Wound healed: no incontinence: urine per urethra: none through wound.

Remarks.—Traumatic stricture of urethra was thus cured by plastic operation of external urethrotomy, but why there was incontinence, and why it ceased after operation, are puzzles which I would like to be solved by your numerous experienced and eminent readers.

overlooked by the Sanitary Commissioner entirely. He accounts for the great difference between European troops and native troops as follows :—

"The proportion of cases returned as simple continued fever is much lower in the native army than in the European; perhaps because the native soldier is not liable to enteric fever, even in a mild form; because he is not so easily affected by the heat; because his ingestion habits are more regular; and because the tendency in the native army is to call mild fevers ague."

Considering the extent to which simple continued fever is returned amongst native prisoners, it is obvious that all these reasons are wide of the mark, except the last, which simply amounts to saying that slackness in diagnosis is the cause of so few cases being returned in the native army.

The causes to which simple continued fever is ascribed are sun, heat, over-exertion, want of acclimatisation, especially when combined; chill, exposure, constipation, errors in diet and drink. Some of the cases were suspected to be enteric fever, or malarial fever, or influenza, or Malta fever, or some yet undifferentiated fever; and the application of the serum test is said at Rawal Pindi to have led to the smallness of the number of cases returned as simple continued fever.

All this is very unsatisfactory; many of the causes given are not applicable to native prisoners who, as we have seen, suffer to a considerable extent. The tendency in many places at the present day, notably in the United States, is to assume that all cases of simple continued fever are nothing more than mild cases of enteric; the large number of cases amongst prisoners seems to disprove this—in fact absolutely disproves it—if any reliance can be placed on the figures and in the belief that the native is immune to even mild enteric.

The question is obviously in a most unsatisfactory state, and the Sanitary Commissioner's way of dealing with it shows how little importance is attached to it, and how little hope there is of any correct solution in the near future.

CHRONIC ARSENICAL POISONING.

The recognition of chronic arsenical poisoning, even by specially-trained observers, is proverbially difficult. The toxic symptoms, which are subject to many permutations and combinations, have been usefully divided by P. BROUARDEL and G. POUCHET into four stages—the stage of digestive disturbance, the stage of eruptions and of laryngeal and bronchial catarrh, that of sensory disturbances, and that of paralysis. In the first stage there is most characteristically lassitude and *malaise*, anorexia and nausea, gastric uneasiness, and sometimes diarrhoea. In the second stage there is evidence of catarrh of the conjunctiva, of the nasal mucous membrane, of the larynx and bronchi, with various skin eruptions and pigmentation. The third stage is characterised by numbness, tingling, formication, and other paræsthesiæ of the extremities, by spontaneous pain with frequent headache and extreme tenderness of the limbs, to even the slightest pressure as of the bedclothes, and anaesthesia. In the fourth stage there is first weakness, and later actual

paralysis of the extensor muscles of the toes, the so-called dorsiflexors of the ankles, and the extensor muscles of the wrist and fingers, giving double foot-drop and double wrist-drop. The paralysis, although usually limited to the extremities, may in severe cases invade the trunk.

ARSENICAL PARALYSIS.

The occurrence of paralysis from arsenical poisoning is said to have been first described in the thirteenth century by PIERRE D'ALBANO. In 1561 AMBROISE PARE described paralysis of all the extremities *duetto arsenic*; it was recorded also by BOERHAAVE, and subsequently by a multitude of physicians. Of 120 cases of arsenical poisoning collected in 1881 by GOUVERNEUR, paralysis of a peripheral type occurred in over one-half. G. BROUARDEL, in the *Archives de Médecine Expérimentale* for 1896, has tabulated the principal facts of some 78 cases of arsenical paralysis occurring after 1852. In 33 it followed repeated doses for arsenic, and in 45 one large dose. Three of the former, which may be taken as typical, are as follow :—

Case I.—On January 13th, 1893, Dr. A. G. BARR, Professor of Medicine in the Yorkshire College, showed a boy, aged 12, almost totally disabled by paralysis due to arsenic, before the Leeds and West Riding Medical-Chirurgical Society. During about eight weeks he had been given arsenic in the Leeds Infirmary for chorea in gradually increasing doses, the maximum dose reached being 18 minims of FOWLER'S solution. During this time he had occasional attacks of vomiting, and although the knee-jerks were absent when he was discharged cured of his chorea, arsenical poisoning was not apparently suspected. A month later he was readmitted with dropped feet and hands, and paralysis of the muscles of the trunk as well as of the limbs. There was wasting of the muscles, anaesthesia, tenderness of the nerve trunks, and loss of all tendon reflexes.

Case II.—On October 17th, 1893, Dr. T. C. RAILTON, then President of the Manchester Clinical Society, showed a case of arsenical paralysis in a girl aged 10, who had been treated with FOWLER'S solution for chorea of three months' standing. She received five-minim doses three times a day for three days, and ten-minim doses three times a day for fifteen days; in all about $13\frac{1}{2}$ drachms were taken equivalent to $6\frac{1}{2}$ grs. of arsenious acid. At the end of that time the chorea had disappeared, but during the course she had shown symptoms of stomach derangement. Two days after the discontinuance of the medicine desquamation of the skin was observed, and ten days later she became unable to walk alone. She had pains in the arms and legs, and the legs were in particular very tender. She complained of pins and needles in the feet, and was unable to button her clothes. There was double drop-foot, the paralysed muscles showed the reaction of degeneration, the knee-jerks were absent, and the urine was slightly albuminous. Dr. RAILTON at the same time stated that he had treated nine other children for chorea with 15-minim doses of FOWLER'S solution, three for the space of one week, and six for two weeks: of these seven had vomiting, one diarrhoea, three herpes zoster, two erythema, and one peripheral neuritis,

but not so severely as the first patient. In all the chorea was cured at the end of the treatment, but he had come to the conclusion that 15 minims was too large a dose if continued for more than a week.

Case III.—Dr. WILLIAM OSLER, on October 27th, 1892, began to treat a man suffering from HODGKIN'S disease with FOWLER'S solution, the dose of which was gradually increased, until after two weeks it had reached 15 minims three times a day, beyond which it was not raised. By the end of November the skin was bronzed in places. On December 19th the drug was stopped for eight days. The pigmentation increased, and there was occasional diarrhoea. By the middle of January the muscles of the legs were very tender, and the man walked stiffly. At the end of January he walked with much difficulty; the muscles of the legs were flabby and the knee-jerks had disappeared. On February 2nd a modified reaction of degeneration was observed in the paralysed muscles. During seventy-five days the patient had taken 33 drachms 18 minims of the solution, equivalent to 16½ grs. of arsenious acid.

The following case is not included in BROUARDEL'S tables, but it is quoted as a typical one of more recent date:—

Case IV.—Dr. W. S. COLMAN showed before the Clinical Society of London, on January 14th, 1898, a girl, aged 12, who had been treated with FOWLER'S solution for chorea. On September 23rd, 1897, when she had been suffering from chorea for six days, she became an in-patient. From September 27th to October 28th, with the exception of six days when the administration of the drug was suspended on account of gastric disturbance, she took 15 minims of FOWLER'S solution three times a day. She left the hospital cured of the chorea and apparently quite well. On November 10th her legs tingled and felt weak. On November 17th there was distinct ankle-drop. In December she was admitted into the National Hospital, Queen Square, with almost complete paralysis below the knees, with well-marked reaction of degeneration, weakness of the extensor muscles in the forearms, and diminished faradic reaction. There was no anaesthesia, but the leg muscles were tender, and there was well-marked arsenical pigmentation of the neck and groins. Dr. COLMAN remarked that the case showed that these somewhat heroic doses of arsenic, which had been so highly vaunted in the treatment of chorea, were not without serious dangers. Several instances of similar paralysis had come under his notice, and in one recovery had not taken place.

PATHOLOGICAL ANATOMY OF ARSENICAL PARALYSIS.

The paralysis due to arsenic may occur at an interval, usually measured by weeks, after the ingestion of a single large dose, but the presence in the blood of a minute quantity for a long time is more apt to produce it. As in the case of lead, it is uncertain whether the toxic substance in the blood acts primarily on the peripheral nerves or on the cells in the anterior horns of the spinal cord, or whether it acts simultaneously on both. That arsenical poisoning does produce degenerative changes in nerve cells has been demonstrated experimentally by NISSEL, LUGARO, SCHAFFER, MARINESCO, and others, and

that it does produce destructive changes in the nerves, has been experimentally demonstrated by JASCHKE and ALEXANDER, while SKLARET and others have found both central and peripheral changes in animals poisoned with arsenic. ALEXANDER administered arsenic to 50 rabbits; six of these developed paralysis, and in three there were demonstrable lesions of the nerves. Paralysis of the hind limbs was produced by the arsenical poisoning of guinea-pigs by BROUARDEL and THORNTON in many instances. The doses used were medium (about 0.7 mg. per 100 grams of body weight), and were given at an interval of two days. Paralysis occurred in some in about nine days. LEYDEN has reported the results of the *post-mortem* examination of two cases of arsenical paralysis, both showing multiple neuritis. BRILICKI and RYBALKEN, on the other hand, have reported necropsies on two cases which showed changes in the cord in addition to neuritis. Although the evidence is as yet insufficient to determine whether the cell or the nerve fibre first shows definite microscopical changes, it is probable that the whole neuron, cell as well as its axis cylinder process forming the nerve, is extremely sensitive to the toxic influence of arsenic. But experiment seems to have shown that the nervous system of man is more susceptible to its action than that of any of the animals ordinarily used in research.

THE QUESTION OF DOSE.

The amount of arsenic required to produce toxic symptoms seems to be governed by many factors, such as the age of the person taking it, the form in which it is taken, the condition of the stomach when it is taken by the mouth, the co-operation of other toxic agents and individual peculiarities grouped under the heading idiosyncrasy. When death has occurred from a single dose, it has been very difficult to estimate how much of the quantity taken has been in operation, because much may have been vomited, and much of the very insoluble solid arsenious acid has probably been passed unchanged *per rectum*. The smallest fatal dose hitherto recorded is two grs. of arsenious acid. But it is a matter of everyday observation that slight toxic symptoms, such as watering of the eyes and a silvery tongue, are produced by the medicinal use of FOWLER'S solution in medium doses.

TOXICITY OF ARSENIC.

Perhaps one of the most marked cases of the toxic activity of arsenic is that of a patient who developed definite symptoms after taking 45 minims of FOWLER'S solution, less than half a grain of arsenious acid, in five days. The activity of arsenic solution is much greater than in the solid form, and yet, while the maximum dose mentioned in the *British Pharmacopoeia* of the solid arsenic is $\frac{1}{15}$ gr., the maximum dose of the more active solution is 8 minims, about $\frac{1}{15}$ gr.

A case is recorded of an infant who died from the effects of arsenic that it had received through its mother's milk, who herself showed toxic symptoms, but recovered.

The amount of arsenic necessary to produce toxic symptoms, when inhaled into the lungs as spray or vapour, appears to be extremely small. Death has occurred in several instances from the application of arsenical preparations to inflamed surfaces, as to a cancerous breast

or to an inflamed tooth pulp, and it is probable that a condition of catarrh of the stomach rather facilitates the absorption of arsenic.

TOLERATION.

That a degree of toleration to the drug may be attained appears to be fairly well established. This is described particularly among the operatives in the Salzburg arsenic works, and in the case of the arsenic eaters in Styria; but is said that many of the latter succumb in their attempt to establish the habit. It is stated that a small community in Cumberland habitually drink a water containing 1 gr. of arsenic to the gallon, and are healthy.

Among other evidence showing that in conjunction with another neuritic poison, such as alcohol, the drug is more virulent, may be instanced the epidemic of arsenical poisoning in 1888 in Hyeres, when more than 400 persons were affected from drinking wine contaminated with arsenic; the cases of paralysis among them were investigated by PIERRE MARIE.

ELIMINATION.

In this connection a consideration of the rapidity of the elimination of the drug is of importance. It is often stated that it does not accumulate; but this is only partially true, because, although it rapidly begins to be eliminated, the complete elimination is a matter of time. In the Hyeres epidemic arsenic was recognised in the urine forty days after the drug had been taken. From observations on animals LUDWIG gives three weeks as the time needed for complete elimination, and GUBLER six weeks; the latter also states that after it has ceased it may reappear if potassium iodide be given.

IDIOSYNCRASY.

As a rule, it has been found that after middle life its untoward effects are more easily developed; but a case corresponding with that recorded by Dr. BROWN, of Bacup, of an infant who developed symptoms from mere traces of the drug obtained by sips of infected beer, was recorded in one of the French epidemics (Havre). The variations of the individual in regard to susceptibility are almost, if not quite, as marked in the case of arsenic as in that of lead, and—as seen, for example, in the case of epileptics to whom it has been given in small doses mainly to prevent bromism—one patient may develop a bronzed pigmentation from doses taken by another with no obvious toxic effect.

THE MANCHESTER EPIDEMIC.

In regard to the present epidemic of neuritis in the Manchester district, the almost invariable condition is that the affected persons drank beer, but not more than the average person, say, London. Many of the beer drinkers of Manchester have contracted a disease which absolutely corresponds with chronic arsenical poisoning, but the beer drinkers in London have not. Arsenic has been found in the beer sold to the patients in Manchester, and has been recovered from their urine. The beer sold in London has been found to be quite free from arsenic. As a correspondent has pointed out, it has been stated long before the present epidemic that, according to observations made in the past at the Manchester Royal Infirmary, multiple neuritis is often caused by beer, and this is certainly not the experience in London.

COMMENTS AND NEWS.

LIVING BEYOND A CENTURY.

MR. WILLIAM KINNEAR, in the columns of an American contemporary, discusses the question of "old age" in a pleasant, chatty style. We give a rapid review. It is pointed out that, whether heredity has anything to do with longevity or not, it seemed to be shown by statistics that centenarians, and such as lived to an extreme age, usually inherited this quality from the mother, and her mother, rather than from the male line of ancestors. The longer the time of growth the longer the life seemed to be the rule with man and all other animal bodies. Athletes were not usually long lived. Nervous energy and a determined will were no fair equivalents for a naturally feeble physique, and many young men of this class, by competing with those much superior in physical endurance and strength, ruined themselves for life. It was the heart, the lungs and the arteries that suffered most in this strain, and not the muscles. Overtaxing a body not intended by nature for such contests showed its bad results in old age. Old age always showed itself first in the arteries: if these were soft and compressible, there was little deterioration; if without elasticity and thickened, nutritive conditions were being interfered with in the various tissues. Natural genius, which had been highly cultivated and refined by a certain form of education, developed a morbid sort of excess with much irritability. Such usually did not live long. After people had reached extreme old age, the question frequently arose as to what should be done with them. JAMES PAYN, the novelist, seemed to think long life a dreadful bore. Dr. AINSLIE HALLIS insisted that old age in the present time came later, and youth and manhood had a better race: middle life had shifted to 50 instead of 35. Formerly the longest lived were the labourers and those of the poor ignorant class who spent much time in the open air. Now even the poets lived long. The 'clergy' live the longest, and physicians, as a rule, the shortest. People of one hundred years and over show generally little or no trace of gout and rheumatic affections, and were not so prone to disease as younger people, who only reached middle life. Special maladies were rare among them. They merely wasted away and died painlessly. Climate had undoubtedly much to do with long life. Regions exempt from sudden changes of temperature, and where one could live much in the open air, were best for those who desired to live long. All reports of centenarians fully support the belief that the ability to take and enjoy exercise out in the clear, clean, fresh air contributed largely to long life. Vegetarianism had not yet produced many centenarians: these all eat meat occasionally. The brain affections of centenarians and the recoveries from them was one of the most remarkable of their peculiarities. In an aged person the brain was progressively shrinking, and the interspace between it and the skull caused by the shrinkage was being filled by fluid effusions in the subarachnoid or pia mater tissue, and there might be temporary irregularities and imperfections in this compensating adjustment of the pressure of fluid on the surface and of the blood circulation in the interior which would account for cerebral attacks, and also for the recoveries from them. As students of longevity, it was not necessary to insist on a strict fruit and vegetable diet. Statistics demonstrated emphatically that women exceeded men as long lived. Cheerful and contented people always lived longer than the irritable and fretful. Sound centenarians, however, could not be made out of bad material. Old age was curtailed of many pleasures.

but it also escaped many annoyances to which younger people were subject. If a proper use of early years had been cultivated, and prodigal and riotous living not indulged in, a wholesome age could be looked forward to. Official tables seemed to prove that long-lived families were more likely to produce centenarians than others, and this had suggested the idea of inter-marriage between long-lived families to test the rule: but when the various modes of killing off people now-a-days were considered, such as railways, steamboats, elevators, folding beds, electric lights, dynamite, &c., to say nothing of patent military machines for wholesale murder, it was really a wonder that there were any centenarians left at all. There were certain physical indications which gave clues to longevity and may be accepted as facts. A large heart, large lungs, brain and digestive powers, as well as large sexual organs, indicated long life. Good lungs were shown by wide, open, full nostrils. Small, pinched nostrils were nearly always signs of weak lung power. A person who appeared tall in sitting, and short and rather thick-set in standing, was more apt to live long, being endowed with a long trunk and short legs and arms. To all these general rules, however, there were many recorded exceptions.

IS IT PERMISSIBLE FOR DIABETICS TO USE SUGAR?

In a recent clinical lecture, Professor LEPINE, of Lyons, has related the case of a man, aged 60, who had suffered from moderate diabetes for twenty years, the average daily quantity of urine being about 60 ounces, containing about 18,000 grs. of sugar. Last winter, after an attack of influenza bronchitis, he became worse, lost a good deal of weight, and grew so feeble that he could hardly walk about his room. Regarding his case as hopeless, he allowed himself the indulgence of putting sugar in his wine, tea and coffee, and to his surprise he found that small doses of sugar amounting to 600 or 700 grs. had no ill-effect, but that his strength began to increase. At this stage he was seen by Professor LEPINE, who found him evidently improving, and permitted him to continue to use these small quantities of sugar. Professor LEPINE in his commentary recalls the fact that forty years ago, as may be seen by referring to the numbers of the *British Medical Journal* at that period, the treatment of diabetes by sugar was strongly advocated by BUDD, CORFE, SLOANE, and others upon purely empirical grounds. The cases given in support of this practice are, in the opinion of Professor LEPINE, wanting in those details which are indispensable to enable us to judge of their value, but he points out that there is nothing irrational in supposing that small quantities of sugar may be taken by diabetic patients without injury and even with advantage. Cane sugar is made up of equal quantities of glucose and levulose, and of late years it has been shown levulose can be tolerated by many diabetics in doses of from an ounce to an ounce and-a-half daily. Much also depends upon the rate at which the sugar is absorbed and the quantity taken at one time. Professor LEPINE suggests that small quantities of honey, which consists almost exclusively of levulose, may be tolerated even better than cane sugar, and he urges that it is not irrational to make carefully-guarded experiments with limited quantities of saccharine substances in the treatment of diabetes, for diabetic patients vary considerably in their tolerance of carbohydrate food, and this can only be determined by observation in each case.

THE EFFECT OF SOME CARDIAC TONICS AND OF SOME HYDRO-THERAPEUTIC MEASURES ON THE ARTERIAL PRESSURE IN INFECTIOUS DISEASES, ESPECIALLY ENTERIC FEVER AND PNEUMONIA.

In many infectious diseases, which in themselves are not very serious, it is the heart that is the danger, and failure of the heart's action is one of the commonest causes of death: hence the importance of the part played by cardiac tonics in these diseases. But our knowledge of the efficaciousness of the drugs in question is very indefinite—certain authors indeed, consider them to be more injurious than beneficial.

M. MERCANDINO has now studied, by means of the sphygmometer of Riva-Rocci, the effect of the commonest cardiac tonics on the arterial pressure in certain infectious diseases, especially enteric fever and pneumonia.

The result of these researches is not very encouraging. Thus in ten patients camphor, which had raised such brilliant hopes, had no effect upon the arterial pressure in three cases; in the other seven the elevation of pressure varied from three to ten millimetres of mercury.

As for the pulse, it was, as a rule, slightly diminished (from two to fourteen pulsations); in one case it was unaffected; in another it was accelerated by two pulsations.

Caffeine gave no better results: out of eight cases it was inactive, as far as the arterial pressure was concerned, three times; in the other five there was an elevation varying between three and eight millimetres. The pulse was unaffected in one case, was accelerated by four pulsations in two cases, and diminished from four to eleven pulsations in the other five.

We need not enter into details regarding strophanthus which actually diminished the arterial pressure on the fifth day of a pneumonia, or ether, which was almost always inactive, or alcohol in the form of marsh-mallows. This last, however, had a sufficiently marked influence upon the pressure: in ten cases it twice raised it 20 millimetres, once 14; unfortunately the beneficial action was inconstant.

The conclusion that the author draws, with good reason, from these researches is that the cardiac tonics, in infectious diseases, have only a slight action, less marked in proportion to the severity of the disease, and consequently to the greater urgency.

It is fortunately not the same with regard to hydro-therapeutic measures. M. MERCANDINO has studied, from this point of view, the cold bath, the gradually cooled bath, the tepid bath at 86°F., and the wet pack.

With the first of these measures, the pressure was always raised, on an average, 13 millimetres in 13 cases, while the pulse showed an average decrease of 15 pulsations. The gradually cooled bath and the wet pack had a similar effect, but less marked; the action of the tepid bath was more feeble and besides was unreliable.

From these data, the author believes himself justified in deducing a rational treatment of fever, of which the following are the elements:—

According to the age of the patient, his constitution, the manner in which he reacts, the gravity of the case, the amount of fever, he employs either the cold bath, the gradually cooled bath, or the tepid bath, reserving the wet pack for the intervals between the baths and at night. He only gives three baths a day, because of the trouble they involve upon the attendants.

When the rectal temperature, in spite of the hydro-therapeutic measures, remains for several days at about 104°F., he administers at night from 15 to 25 grains of chlorhydrate of quinine. He also prescribes this drug when the bath is contraindicated, as in intestinal hemorrhage.

THE PHYSICIAN'S TEMPERAMENT.

THE *Medical Brief* says:—Every man is influenced by his temperament. The physician is no exception. Temperamental peculiarities have more to do with our success than we begin to realize. It is a difference in temperament quite as much as any essential difference in knowledge, method or training which makes some doctors a power in the sick room, where others are negative.

Therefore self-knowledge and self-culture are very important to the physician. If he sees his lack of certain qualities necessary to reassure and encourage the patient, he will keep his misgivings and suspense to himself. If he recognizes that he is timid, uncertain, vacillating by nature, he will set to work to transmute these tendencies into positive characteristics. He will not rush into a rashly gloomy prognosis or speak doubtfully of medicine.

If he is inclined to be over-enthusiastic and radical, he will put the curb on himself and refrain from declaring that operation is, and must be, the only way to save or cure a patient. If he is too sanguine, he will learn to be a little slow in promising permanent cures or absolute relief.

In other words, he will endeavor to eliminate the elements of weakness which his temperament furnishes, and to strengthen his moral powers, so that his personal influence may aid him in curing disease.

There is no doubt that every physician carries an atmosphere with him which is either strengthening or depressing. We have all seen doctors who are wet blankets in the sick-room, and others whose mere presence stimulated all the vital powers.

If a man will practice medicine, he should try to see himself as others do, and get rid of faults of temperament, moods, and unlovely manners, which hamper his usefulness. Culture, discipline and health can almost make up for any natural lack, and these can be had if there is grit and determination to work for them. It is difficult to help others until we have helped ourselves. Mere knowledge can achieve little. There must be power back of it. Experience alone gives power.

So the doctor who has discovered his good and bad points, and has schooled himself to make the best use of his powers, can handle his patients to the best advantage. He knows how to make their minds aid their bodies; he knows how to draw out a true history of disease; he knows when a little advice will be acceptable, and when to make light of troubles without giving offence. Sympathy and tact become instinctive with him, and he knows just how to adapt his manner to the occasion and the person without seeming too much impressed. Such a doctor can get control of his patients. He soon has their confidence and co-operation, which is half the battle.

Mould your temperament to the exigencies of your calling if you would be a genuine healer.

DEATH OF A GREAT IRISH SURGEON AND JOURNALIST.

WE regret to have to chronicle the death of Dr. ARCHIBALD HAMILTON JACOB, B.A., M.D., F.R.C.S.I., the veteran journalist and eminent oculist of Dublin, which took place with

brief warning, on January 12th. For upwards of thirty-five years Dr. JACOB has had charge of the Irish department of the *Medical Press and Circular*, of which he was proprietor. His outspoken honesty of purpose and the intimate knowledge which he possessed of the medical poor-law service of Ireland gave great weight to his utterances, and he was the sworn enemy of all jobbery and humbug, from whatever quarter they hailed. Faithful to his principles, he attacked indifferently either friends or foes when their conduct failed to harmonize with his ideas of what was right and proper, his dominant principle being that the calling of medicine implied, or should imply, culture and refinement. Dr. JACOB was possessed of exceptional clearness of judgment, and expressed his views in terse epigrammatic English. He was a fluent writer and an able speaker, and rendered valuable assistance in all parliamentary affairs, of which he had many years' experience. The Irish Medical Association, which was the creation of his father, Dr. ARTHUR JACOB, owes its present prosperous condition largely to his fostering care, though on occasion he did not hesitate to purge away its faults. In private life Dr. JACOB was one of the most delightful of companions, full of anecdote, quick at repartee, and hospitable withal. Just to his enemies and faithful to his friends, though he spared not the rod, he was universally esteemed and respected. He was marked out as the most suitable representative of his College on the General Medical Council, but owing to failing health and other circumstances he never occupied that position. He was the most disinterested of men, scorning to intrigue for well-paid posts, and content to do his duty fearlessly, alike in his consulting-room and with his pen. Dr. JACOB was for many years Registrar of the Royal College of Surgeons in Ireland, and at the time of his death he occupied the position of Professor of Ophthalmology in the College; he was ophthalmic surgeon to the House of Industry Hospital, and oculist to the Lord Lieutenant. He leaves a wife and large family to mourn his loss.

TEST ALL THINGS : HOLD FAST TO THAT WHICH IS GOOD.

THE doctor, of all men, must avoid hobby-riding. He should be broad, liberal, of an enquiring turn of mind, and open to conviction. The utility of remedies and measures should rest upon their intrinsic merits, and their scope, or field, be determined entirely by commonsense and experience.

There are certain standard proprietary remedies essential to a man's clinical success. There are also alkaloidal remedies invaluable in their place. Eclectic and homoeopathic preparations are extremely useful at times. There are occasions when polypharmacy of the most empirical description exactly fills the bill. Witness WARBURG's tincture.

Every doctor has seen cases where crude opium or pulverised cinchona bark gave him better results than any of the alkaloids derived from them; and others where the intense but more limited action of the alkaloid was just the thing. The early American settlers carried both a broad and a narrow axe, each for its own kind of work; so with the successful therapist. He must familiarize himself with the indications and limitations of all the medicinal material with which science has armed him.

With certain delicately organized, very susceptible temperaments, the infinitesimal, frequently repeated, dose, with its single aim, is just right. The sturdier, more obtuse organisation responds better to the slow, diffused action of complex substances in larger dose at greater intervals.

Oftentimes the system responds much quicker to fluid preparations; but there are cases where a slow local action is preferable.

In considering what remedies shall be employed in every case, the temperament and constitution of the patient, together with the pathological principles operative, must be considered equally with the claims of various kinds of therapy. Sometimes a case will not bear any kind of medication at first. Then we must adapt hydrotherapy, massage, electricity, dieting, suggestion, until we get enough vitality to work on. Other cases have abundant life force, but like an unbroken colt, it breaks out in all kinds of perversities.

It requires much insight, skill and experience to steer successfully among the clinical perplexities which beset us, but hobby-riding will not simplify the work. It only prepares the way for a series of disappointments from which we learn nothing, but which, under a liberal system of practice, is our best guide and instructor. We may classify our knowledge as it comes to us, item by item, but we cannot generalize broadly from a single one.

Hobby-riding builds up arbitrary restrictions which are opposed to progress, and is narrowing in its influence. There is good in everything. To extract and apply it, under the rulings of commonsense and experience, is the true physician's province.

MISTAKES IN GYNÆCOLOGY.

In the address in Gynæcology at the Ottawa meeting of the Canadian Medical Association, Dr. WILLIAM GARDNER of the McGill University, discussed Mistakes in Diagnosis and Treatment; and we doubt if any of his hearers ever spent an hour in listening to wiser practical advice. We may mention some of the points upon which Dr. GARDNER instructed his audience. The importance of a proper method of examination: the very limited utility of the uterine sound; the frequent association of displacements of viscera; vaginitis as a cause of symptoms; the importance of always, when dealing with an abdominal swelling, bearing in mind the possibility of pregnancy, intrauterine or extrauterine; the gravity of ascribing hæmorrhages or unaccustomed discharges in women at the climacteric time to the "change of life" without examination, thereby overlooking cancer while yet in its curable stage; the duty, not only of discovering anything that is abnormal, but of estimating rightly the extent of its effect upon the patient's health, bodily and mental. There is nothing novel about any of these things. It is the commonness of the mistakes dwelt upon that makes it so desirable that the profession should be kept alive to the necessity of avoiding them and the disasters that come from carelessness in such matters. Dr. GARDNER's advice ought to sink deep into the minds of his hearers and his readers.

WANTED AN OFFICIATING "PROFESSOR" OF SURGERY FOR CALCUTTA.

THE Director-General, I. M. S., is once again in straits to find a "Professor" of Surgery and a "surgeon" for the Calcutta Medical College and Hospital. "Professor" R. D. MURRAY, of lithotomy and lithotripsy notoriety, has been granted furlough for six months, and the boat that is to convey him "Home" is timed to leave in the middle of March. Yet the Director-General is not ready with a substitute for the immortalised MURRAY of "Stone" fame. May we ask if all the Colonels and Lieutenant-Colonels of the I. M. S. in Bengal are considered too "weak" to

teach surgery and to operate on "stone" cases? If so, why not put in a private practitioner—an F. R. C. S.—one who puts on all the airs of a real live "professor" has, we believe, applied for the officiating post. Or why not apply to the India Office for a selection from one of the British hospitals? With Dr. HAVELOCK CHARLES away from the College Hospital, what is Calcutta to do without a surgical "professor." Of course the public need I. M. S. "Professors," but here we find the Director-General denuding the city of official surgeons. Both are to disappear from the scene of their labors together. This is surely as calamitous as it is unpardonable! But, we ask again, who is to temporarily succeed "Professor" MURRAY? This is a serious matter, and it behoves the authorities to look about carefully and select a thoroughly good, experienced and reliable surgeon, or it is high time the public protested against these slipshod, happy-go-lucky guesses at "surgeon-making."

FOURTEEN AND A HALF HOURS' ARTIFICIAL RESPIRATION IN A CHILD ONE WEEK OLD: RECOVERY.

G. E. KEITH, M. B., reports the case of a male child, aged one week, upon whom the operation of circumcision was performed for long and tight foreskin. Chloroform was the anæsthetic used; the child did not breathe well and lost more blood than usual. About fifteen hours later the child became dyspnoic and cyanosed, and when seen was apparently dead. Under artificial respiration breathing recommenced, to fall once more when the passive movements were stopped. The artificial respiration was continued for fourteen hours and a half, at the rate of twenty to the minute. Oxygen was used continuously, and heat was applied by means of a hot-water bottle. By the time normal respiration returned, the child's chest and upper abdomen resembled raw beef, and the arms were red and excoriated from the violent use to which they had been put. Recovery was very rapid. Twenty drops of brandy every hour were given and were well tolerated; a smaller amount seemed to cause a loss of ground on the part of the patient. The brandy was never noticeable on the breath; it was all used in the struggle for life.

FORMOL IN UTERINE HÆMORRHAGE.

SOLUTIONS of formaline were first employed by Dr. RANELLETTI, of Rome, in the treatment of inoperable uterine cancer. One of the advantages of the formaline applications he used was to stop the hæmorrhage which always accompanies this form of neoplasm.

The use of formol in gynæcology has since then been extended by Dr. GERSTENBERG, of Berlin. He states that he has succeeded in checking various forms of metrorrhagia by the application of a solution of formic aldehyde.

The following is his mode of procedure: Having seized the anterior margin of the cervix with a tenaculum, he passes a sound, carrying a tampon of cotton wool saturated with a 40% solution of formol, into the cavity of the uterus, and then twists it round and round. According to the case, he does this two or three times. Having withdrawn the sound, nothing remains but to place a plug in the vagina to protect the vaginal mucous membrane from the irritant action of the caustic, and to recommend that the patient should remain in bed for two days if possible.

In six cases in which it was employed, the method was completely successful, it was particularly efficacious in hæmorrhages at the "change of life," and in hæmorrhagic endometritis consecutive to abortion.

In addition to its hæmostatic effects, formol acts favourably by inducing strong uterine contractions.

SEDATIVE ENEMATA IN ECLAMPSIA.

It is known that the combination of several drugs having similar properties increases their activity. It is for this reason that a mixture of chloral, bromide of potash, hyoscyamus, and cannabis indica is constantly employed as a hypnotic where an excited state of the nervous system is the cause of insomnia.

Dr. POPESCU, of Czarnowitz, has tried a similar combination in the crises of eclampsia.

The following is his formula :—

Bromide of potassium	℥ss	...	...	℥i.
Chloral hydrate				
Extract of hyoscyamus		℥ss	...	grs. iv.
Extract of cannabis indica				
Liquid extract of Nigella	...			℥i.
Essence of the rind of bitter orange	...			℥v.

A tablespoonful of this mixture is given as an enema, usually three is not necessary. Dr. POPESCU has used this in a large number of cases of eclampsia, and always with complete success.

TOTAL ABSTINENCE IS SAFE.

Of the baneful possibilities of alcoholic indulgence medical men need no extra-professional evidence. To it can be traced no small measure of crime, disease and death. The appeal of the Commander-in-Chief of the British forces in South Africa, that the welcome of the troops returning to England "may not take the form of 'treating' the men to stimulants in public houses or in the streets, and thus lead them into excesses which must tend to degrade those whom the nation delights to honour," is therefore both timely and judicious. There may be legitimate differences of opinion as to the physiologic activity and the therapeutic utility of alcohol, as to what constitutes temperate or moderate and what excessive indulgence, but none will deny that those who abstain are on the safe side and assume no risk.

WHERE DOES ARSENIC NOT EXIST?

THIS is a question which will have to be answered some time soon, for it seems most difficult to be sure that anything which has gone through a chemical process is free from arsenic, unless special pains have been taken to get rid of it. We hear local authorities have recently purchased samples of borax from chemists, doctors, and grocers, and as the result of analyses all the vendors, with one exception, have been summoned under the Sale of Food and Drugs Act for selling an impure article. The public analyst has found arsenic in the specimens to the extent of from $\frac{1}{10}$ to $\frac{1}{4}$ gr. per lb., and even the borax of the vendor who was not summoned contained a trace, but so little that the authorities would not risk a prosecution.

DEADLY SERUM.

THE use of diphtheria serum is likely to receive a severe check in Italy. The Serotherapeutic Institute of Milan made a batch of the serum on November 24th, into which the tetanus bacillus was accidentally introduced. The result has been that eight persons on whom the serum was used have met with horrible deaths from tetanus. The Institute has been closed by the Prefect, the stocks of serum destroyed, and steps taken to recall the supplies in the hands of dealers. The accident has caused somewhat of a scare amongst the public and the medical profession in Italy, and, it is thought, may check the use of the serum in other countries as well.

MALARIA WITHOUT MOSQUITOES.

F. SEMMLER, M.D., writes to the Editor of the *Medical Record*, Cordoba, Mexico. Once more malaria and mosquitoes. There is a railroad being built from here running south and east to join the railroad of the Isthmus of Tehuantepec at a certain place. At a distance of 93 km. from Cordoba is a marshy plain with a few houses and no drinkable water. The place is called "Tierra blanca." When I went there I was greatly surprised not to find any mosquitoes, and yet the place is a first-class malaria breeder.

MEDICAL DEPARTMENT OF THE QUEEN'S HOUSEHOLD IN SCOTLAND AND IRELAND.

THE following is a list of the officers of the Medical Department of the late Queen Victoria's Household in Scotland and Ireland respectively :—

SCOTLAND.

Physicians in Ordinary: Sir W. T. Gairdner, K.C.B., M.D.; G. W. Balfour, M.D. *Surgeons in Ordinary:* P. H. Watson, M.D.; A. Ogston, M.D. *Surgeon Oculist:* D. A. Robertson, M.D. *Surgeon-Dentist:* J. Smith, M.D.

IRELAND.

Physicians in Ordinary: Sir J. Banks, K.C.B., M.D.; W. Moore, M.D. *Surgeons in Ordinary:* Sir P. O. Smyly, M.D.; Sir W. Thomson, M.D. *Surgeon Oculist:* C. E. Fitzgerald, M.D. *Apothecary:* J. Evans.

REVISED LEAVE PAY FOR WARRANT GRADES.

The following are the recently sanctioned revised rates per annum of leave pay for departmental officers with warrant rank and warrant officers of the Indian Army Department and Indian Subordinate Medical Department. They apply to leave out of India, and take effect from 1st April next :—Deputy Assistant Commissary, £125; Conductor, £100; Sub-Conductor, £90; Senior Assistant Surgeon with the honorary rank of Lieutenant, £125; Assistant Surgeon, 1st class, £120; 2nd class, £90; 3rd class, £70; 4th class, £50. A non-commissioned officer promoted to warrant rank during furlough will be paid accordingly with effect only from the date from which the rate of leave pay admissible to a Sub-Conductor operates to his advantage.

"JACOB MEMORIAL."

IT is proposed by many of the friends of the late Dr. ARCHIBALD H. JACOB, Dublin, to raise a memorial in testimony of his life-long work in the interests of the profession. Subscriptions may be forwarded to Sir CHARLES CAMERON, C.B., 51, Pembroke Road, or Dr. L. H. GEMMEL, Vice-President, R. C. S., 92, Merrion Square, West, Honorary Treasurers, or to Mr. G. F. BLAKE, Registrar, Royal College of Surgeons, Stephen's Green, West.

SHORT ITEMS AND PERSONALITIES.

Deputy Surgeon-General C. E. Raddock, I.M.S. (retired) died at Norwood on the 5th ultimo. He served under Sir Colin Campbell in the Mutiny, and was present at the relief of Lucknow in November 1857, the actions of Cawnpore, Serai Ghat, etc., and was with the Jaunpore Field Force from January to April 1885, and also saw fighting in the Bhootar campaign (1865) and in Afghanistan (1879).

Major J. C. Morgan, R.A.M.C., who was lately for two years Staff Surgeon of the Punjab Command Headquarters, has been appointed Medical Officer of the Duke of York's Royal Military School at Chelsea. The appointment is a just recognition of the excellent work done by Major Morgan when in charge of headquarters during the Tirah campaign.

"To give what none can measure, none can weigh,
Simply to go where duty points the way.
Faith, honor, duty—duty calmly done,
That shouts no self-praise o'er a victory won;
One bugle note their battle call,
One single watchword, DUTY—that is all."

—WILL MITCHELL.

The opium revenue in Bengal, to the end of December shows an excess of 5,555,845r. over estimates, and to the end of November in Bombay an excess of 432,350r.—nearly ten lakhs of rupees to the good in spite of the unsettled state of China.

Surgeon-General Spencer, Principal Medical Officer Punjab Command, who has lately once acted as Director-General, Indian Medical Service, will probably officiate as General Harvey when the latter proceeds on furlough.

Mr. J. B. Story, M.B., F.R.C.S., has been appointed Surgeon-Oculist to His Excellency the Lord Lieutenant of Ireland, in the room of the late Dr. A. H. Jacob. Mr. Story is Senior Surgeon to the St. Mark's Branch of the Royal Victoria Eye and Ear Hospital, Professor of Ophthalmic and Aural Surgery, Royal College of Surgeons in Ireland, and General Secretary of the Royal Academy in Ireland.

Lieutenant-Colonel J. Watson, B.A.M.C., in medical charge of the Station Hospital at Darjeeling, will, on being relieved by Major C. R. Bartlett, B.A.M.C., on the 1st of March 1901, proceed to Jhansi for officiating medical charge of the Station Hospital there.

The recommendation of the Civil Veterinary Department to send thirty students of the Punjab Veterinary College to South Africa has been accepted by the Military Department, provided that they pass the necessary examinations.

Lieutenant-Colonel James Clarke, I.M.S., until lately Civil Surgeon of Sialkot, died at Lahore on Friday morning after a long illness.

Lieutenant-Colonel Percy deHaga Haig, Indian Medical Service (Bengal), Principal Medical Officer, Malakhand Force, is permitted to retire from the service.

Lieutenant-Colonel Moran, I.M.S. (Bengal), has been advanced to the higher position of his grade, *vice* Lieutenant-Colonel Russell, retired.

Messrs. Peter N. Lakshmanan, M. B. C. S., and Henry Bailey Mylvaganam, L. M. and S., have both passed the first examination for the F.R.C.S., Eng.

An exchange has been sanctioned between Lieutenant W. M. Pearson, I. M. S. (Madras), and Lieutenant J. C. S. Oxley, I. M. S. (Punjab).

Volunteers are being called for amongst Veterinary Assistants in India to replace thirty Civil Veterinary Surgeons whose engagements in South Africa are expiring.

The services of Major Philson, R.A.M.C., are about to be applied for appointment as Surgeon to H. B. Lord Hope- town, Governor-General of Federal Australasia.

Major Daly, I.M.S., has been appointed Base Store-keeper, China Field Force.

Major Frederick Pinsent Maynard, I.M.S., M.D., L.R.C.P., D.P.H., has passed the second examination for the F.R.C.S., Eng.

WANTED—A POST BY AN ASSISTANT SURGEON willing to serve in a Native State in the Railways or any Municipality, &c. Apply V., C/o *The Manager*.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Medical Appointments, Transfers, Exchanges are easily and cheaply effected through our special short advertisement page. See terms and apply at once.

News items of medical interest from all parts of the Indian Empire are asked for by the Editor for publication in the *Record*.

Current Medical Literature.

MEDICINE.

Malarial Peripheral Neuritis.

THAT malarial fever will cause peripheral neuritis has not until recently been recognised, and this is another instance of the isolation of a disease and its precise definition and description being followed by a great increase in the number of its known causes. Not so long ago peripheral neuritis was regarded as almost exclusively due to alcoholic excess, particularly in females; now many other causes have been found effective, and the malarial origin of the malady is supported by cases recorded in a valuable paper by Dr. CAMPBELL HIGHT. This article appears in the *Journal of Tropical Medicine* and is entitled *Malarial Peripheral Neuritis*. The affection is preceded by intermittent fever, or more commonly by very frequent attacks of remittent fever. It is only after these attacks have lasted for months that severe symptoms appear. These are at first pain and weakness in the knees and legs, coming on only in the evening after the day's work. Pain is often very severe, and is attended with weakness. The weakness gets more marked; eventually paralysis may ensue. A curious feature is the tendency of the paralysis to pass off and recur. Palpitation is often complained of. The malady is very well illustrated by the records of cases, and the author proceeds to consider its etiology. He regards the nervous affection as being caused by a toxin, itself the product of the malarial germ. In this respect it differs from the neuritis of leprosy. In the latter the actual germ is present in the tissues, whereas in the former only that indefinable nebulous something which, in our ignorance, we call a "toxin," is at work. The author remarks that the neuritis is readily curable, implying, of course, that the patient is removed as soon as possible from malarious influences. Further, it appears that it is only after repeated attacks of malarial fever that peripheral neuritis occurs; single attacks are hardly ever followed by the nervous symptoms. The resemblance of the disease to beri-beri is of course apparent, and a valuable table is given by the author, by means of which the differences between the diseases are readily recognisable. A patient who has once been attacked by peripheral neuritis of malarious origin should, if possible, avoid the tropics for the rest of his life. If compelled to return, the author considers a residence in the large cities should be insisted on, though even then the patient is not safe from exposure to malaria.—*Treatment.*

Bromide Sleep in the Treatment of Acute Mania.

MACLEOD recommends the bromide sleep in the treatment of acute mania. The method he uses to induce this condition is to give the drug only in the daytime, two drachms in a half tumbler of water every two hours until an ounce is given the first day. On the second a similar amount is given in the same manner. This may suffice to produce the sleep which will not be at its deepest until the fourth or fifth day. It is a safe rule in any event to cease the administration of the drug for 24 hours, when drowsiness is so profound that the patient cannot be aroused, or if, when aroused, the talk is incoherent. The condition lasts from five to nine days, during which time the subject sleeps day and night and cannot be aroused. He is unable to stand, sit or speak, or to carry on any of the higher cerebral functions. He will

not eat or drink, nor is he capable of waking for either, being unconscious of such needs. He can, however, be sufficiently nourished with milk. He will pass urine and feces into the bed if left to himself, but can be prevented from doing this if placed on the commode and held there for a few minutes every six hours. During this sleep the higher nerve-centres are arrested to an extent that cannot be attained in any other way. The recovery is gradual and is complete in about 21 or 24 days. MACLEOD has induced this condition safely nine times, and with advantage, in the treatment of the morphia habit, the chloral habit and acute mania. One patient died on the seventh day of treatment from an attack of double pneumonia, which was not thought to have any connection with the treatment.—*Phil. Med. Jour.*

Aneurism of the Aorta treated by the Insertion of a Permanent Wire and Galvanism (Moore-Corradi Method), with a Report of Five Cases.

DR. GUY L. HUNTER (*Bulletin of the Johns Hopkins Hospital*) says:—A black varnish or lacquer makes the best insulation for the needle. The disposition of the wire in the lumen of the sac is an important factor in the amount and the effectiveness of the fibrin whipped out. A small quantity of wire possessing a good spring should be selected. Cure of the aneurism demands as complete contraction as possible of the sac wall upon the clot formed at or soon after the operation. The wire should be of such amount and material as not to interfere seriously with this contraction. The corrosion of the wire by the electric current makes a rough surface very conducive to the rapid whipping out of fibrin. Within certain limits, the wire most easily corroded is to be preferred. The sac should never receive both poles, and the negative electrode should never be in the sac. Sepsis is an omnipresent danger. Another danger is that of the development and rupture of a secondary sac due to the rapid filling up of the main sac by coagulum, and the shunting of the blood stream against a portion not receiving a special strain before. There have been in all twenty-three operations of this character including the author's five. Clinical and post-mortem evidence points to the efficacy of this method. Thirty-nine per cent. of successful results attest the value of this method, and the fact that it is still in its infancy, and most crudely applied, makes the record very impressive.

Two Cases of Acute Hæmorrhagic Pancreatitis.

DR. J. H. BRYANT reports two cases of acute hæmorrhagic pancreatitis occurring in men aged thirty-six and twenty-two years respectively. In both cases the disease was ushered in with an attack of acute abdominal pain rapidly leading to collapse. Both cases underwent laparotomy, but succumbed within twenty-four hours of the operation. In the first case areas of fat necrosis were found throughout the peritoneal cavity, which contained a good deal of blood-stained fluid. No trace of any normal-looking pancreatic tissue was to be seen. The position of the pancreas was occupied by a chocolate-colored mass, three times as large as a normal pancreas, consisting of blood. Marked fat necrosis of the mediastinal and pericardial fat was observed. There was no peritonitis. In the second case there was general acute peritonitis. The pancreas was much enlarged and adherent to the adjacent structures. There were many little infiltrations of blood into its parenchyma. The peritoneal cavity at the time of the operation contained a large collection of clear, bile-stained, serous, sterile fluid. No fat necrosis was found. The existence of fat necrosis outside of the peritoneal cavity, as occurring in the first case, is of great interest.

SURGERY.

Surgical Aspects of Modern Small-Bore Projectile.

SCHACHNER (*Annals of Surgery*) says that all advanced nations have practically the same character of rifle and projectile, and that the modern small-bore projectile is capable of producing wounds of both humane and a gruesome nature. The nature of the wound produced by the small-bore projectile is either dependent upon the intervening distance, or the character of the structure wounded, or both. The precise manner in which the explosive action is developed in structures filled with or rich in fluid is still *sub judice*. The weight of evidence and the majority of authors favor the hydrodynamic rather than the hydraulic theory. The new projectile is propelled with greater energy, velocity, and accuracy; it is lighter, has a smaller frontage, and is less liable to deformation on striking the object. It has less disabling capacity, and on the whole produces wounds of a more humane character than the old leaden bullets. By explosive action is meant the damage created in structures outside the projectile's path. At 800 or 1000 yards explosive action is occasionally met with, and then only in the skull or in parts of the body filled with and rich in moisture. The rotary action of the projectile may continue after its penetrative movement ceases, and the character of the wound is largely dependent upon this rotation.

Inherited Syphilis.

FINGER has undertaken to collect, sift, and review all the literature bearing upon hereditary syphilis, and concludes, as against KASSOWITZ, who believes in unavoidable heredity, that inherited syphilis is a myth, and that transmission of the disease to the fetus depends upon mechanical admixture of syphilitic virus to the ovular or spermatic elements furnished by the infected parent. FINGER further concludes from his research:—

1. Undoubted inheritance of strictly paternal, and
2. Of strictly maternal syphilis;
3. Maternal syphilis is transmissible to the fetus through the ovum, and also during pregnancy *per placenta*.
4. Syphilis acquired by the mother, even in the last month of pregnancy, may infect *in utero* the child of otherwise healthy parents.
5. The presence *in utero* of a fetus infected with paternal syphilis affects the maternal organism in various ways. Either the mother becomes infected (*choc en retour*) or not, while she becomes immune to subsequent syphilitic infection, or, again, she remains perfectly healthy.
6. FINGER recognizes an early form of conceptional syphilis characterized by the immediate occurrence during pregnancy of secondary manifestations—in the absence of a primary lesion—and also a tardy form of conceptional syphilis characterized by the immediate occurrence of tertiary lesions, in the absence of primary or secondary manifestations.
7. By far the largest number of women who escape infection while bearing the offspring of syphilitic fathers acquire it, and by means of, their pregnancy an immunity against subsequent syphilitic infection (COLLES'S law).
8. In the same way do children of syphilitic parents, who escape infection *in utero*, develop immunity toward acquired infection (PROFETA'S law).—*Med. Age.*

Intra-peritoneal Infusion of Saline Solution.

For the gradual introduction of saline solution into the peritoneal cavity after severe operations, EISEL (*Archiv für Klin. Chir.*) has adopted the following method: Before closing the wound a No. 18 catheter is inserted at the lower angle and carried down into DOUGLAS'S pouch. The wound is sutured in the usual manner, and the catheter is cut off and its end secured with a wire suture and attached to a glass irrigator. After the dressings have been applied, a continuous flow of saline solution is begun and maintained for twenty-four hours at the rate of one cubic centimeter a minute. This is effected by compressing the supply tube with a clamp fitted with a millimeter screw. About three pints of fluid is introduced in twenty-four hours.

A case of rupture of the liver, with profuse hæmorrhage, is cited, in which three quarts of saline solution was injected into the peritoneal cavity in two days, the patient making a good recovery without any other stimulation. It was estimated that fully two quarts of blood was lost.—*Med. Age.*

Principles and Treatment of Stuttering.

R. COEN (*Therapeutics*) lays down five principles of treatment which he thinks essential to success in the therapeutics of stuttering: (a) Properly conducted breathing gymnastics, special attention to be paid to the deep, continued inspiration, the short expiratory movement of the breath, the gradual prolonged expiration, and the holding of the breath. (b) The regulation of vocal and speech-producing organs, to be accomplished by enumerating slowly the vowels and diphthongs. (c) Obtaining control of the disturbance of innervation by elimination of the spasmodic periods which occasion disturbances of innervation. (d) Exercising and strengthening the patient's will power. (e) Stimulation and toning up of the general system.

Nail in the Trachea for Two Months: Extraction by a Magnet.

DR. GARREL (*Lyon Médical*) says:—A child, aged 20 months, swallowed a nail 2 inches long and became cyanosed. When the cyanosis had disappeared, the nail was thought to have passed into the œsophagus, but it was not found in the stools. A radiograph showed the foreign body in the trachea. As the child was getting thin, it was decided to remove the nail, and tracheotomy was performed. The nail was not touched by the canula, which was raised, and into the wound held open by a dilator a powerful straight electro-magnet was introduced. The nail soon approached the magnet and was extracted.

Treatment of Tetanus by Bacelli's Method.

THIS consists in the administration of a 2 or 3 per cent. solution of carbolic acid in doses of 3 to 4 centigrammes several times a day, as much as 35 centigrammes being given in one day without ill-effects. ASCOLI, in a monograph, states that in 38 cases there was only one death, and in this the treatment had been less energetic. Morphine is used during the first few days to allay insomnia and hyperæsthesia.—*Novidades Médico-Pharmacológicas.*

OBSTETRICS AND GYNÆCOLOGY.**A Case of Superfecundation.**

DR. DOMENICO POMARA discusses the various theories of superfecundation, superimpregnation, and superfestation, and reports the case of a primipara, aged nineteen years, who had given birth to a boy shortly before the author was called to see her. A few days later she complained of a feeling of fulness in the lower part of the abdomen, and without examining her, the author assured her that this sensation was due to the fact that the womb had not yet completely contracted. The puerperium was perfectly normal, and after a few days the patient was allowed to leave her bed. But the sensation of fulness and swelling did not disappear, and the author, having been called again, examined the patient, and to his surprise found the uterus enlarged to about the size that corresponds to the fourth month of pregnancy. There was a uterine souffle, and the woman said that she had felt foetal movements. Knowing that she had recently been delivered, the author attributed the movements to flatulence, and the swelling to some lesions in the generative organs. He advised an expectant plan of treatment. After observing the patient for one month, he was no longer in doubt, for the increase of the uterine tumour, the intensified uterine souffle, the sympathetic disturbances of pregnancy, and the foetal movements, pointed to a new pregnancy. The further course of events justified the diagnosis, and the woman was delivered of a second child on June 13, 1896, six months after the first labor. The previous history of the patient was as follows: She was married at the age of sixteen and remained sterile for three years, during which time she was treated by gynecologists for stenosis of the cervix. In 1895, a year before the first labor, she had an attack of metritis and salpingoophoritis of the right side. She was advised to abstain from coitus, but when she returned to her home cured, she speedily became pregnant.—*New York Med. Rec.*

Fifty-eight Cases of Eclampsia without a Death.

PROFESSOR STROGANOFF reviews fifty-eight consecutive cases of eclampsia, all the patients recovering. He regards the disease as an acute, infectious one, with a short course, rarely extending over twenty-four hours, almost never over forty-eight. After the first attack, morphine and chloral combined are given repeatedly until the patient is completely narcotised. He regards it as desirable to keep the patient in this condition for from twenty-four to forty-eight hours, according to the severity of the attack. Strict attention must be paid to the regular functional activity of the heart and lungs; that of the former may be fostered by rectal infusions and the ingestion of fluids by mouth during the periods of consciousness. All possible sources of irritation must be avoided, while a safe, but rapid, method of delivery must be chosen. The author adds thirteen additional cases treated by these measures, all of which resulted in a recovery of mother and child. From sixty to seventy-five grains of chloral hydrate, and from one to two grains of morphine, were used on an average.—*New York Med. Rec.*

Two Cases of Total Vaginal Hysterectomy for Puerperal Infection.

DR. JORFIDA says:—Both patients recovered, and he adds these cases to a list of thirty-three which he has

collected from literature. Of these, twenty-two recovered and thirteen died. Of the total number previously reported, nine cases were abdominal hysterectomies (five recovered, four died), ten were supravaginal hysterectomies (nine recovered and one died), ten were cases of vaginal hysterectomies (four recovered and six died), and one case of abdominal-vaginal hysterectomy (recovered). Of the remaining three (one recovered and two died), the method of hysterectomy was not specified. If we add the author's cases to the four recoveries from vaginal hysterectomy in puerperal infection which are recorded, the mortality with this procedure is fifty per cent. This would seem to indicate that vaginal hysterectomy is the operation least suitable for these cases; and yet, in general, the best results are obtained from the vaginal method, among other reasons, because with this method diffusion of the infection to the peritoneum is less likely, and drainage is better. The figures of the writer are, however, too small to warrant any definite conclusion, and therefore this apparent contradiction may be disregarded, or may be explained by the greater gravity of the cases operated on by the vaginal route.—*New York Med. Rec.*

Ectopic Pregnancy.

BALDWIN first notices the earlier dicta of LAWSON TAIT as to the impossibility of diagnosing ectopic pregnancy before rupture, and remarks that in the last ten years we have come to know a great deal more of that condition, and there are many cases in which symptoms arise where a presumable working diagnosis is possible. There are no pathognomonic symptoms, but usually we find the following: There is a history of several years of sterility (with many exceptions); missing of a menstrual period or two (with exceptions); some unusual pain in the pelvis situated usually in the region of an ovary, possibly for a few days more or less irregular hæmorrhage, while there is generally to be found on one side or another of the uterus or back of it a fusiform cystic tumor, quite symmetrical in outline, painful on pressure, with usually evidence of pulsation. With these phenomena it is reasonable to suspect extrauterine pregnancy. Too much stress, however, must not be laid on menstruation or sterility. The pain is usually sharp and colicky, or it may be of a dull throbbing constant character. When the presumable diagnosis has been made, operation is advisable. He reports eleven cases.—*Jour. Amer. Med. Assoc.*

Radical Operation for Uterine Carcinoma.

PROFESSOR E. WERTHEIM points out the insufficiency of vaginal hysterectomy and the present groundless fear of the high mortality of twenty years ago of the abdominal operation. The latter is the operation to perform at the present day, as it is essential, to secure permanent freedom from recurrence, to extirpate the glands in the pelvis as well as the parametrium. Of thirty-three cases in which this course was followed, eleven were found to have glandular involvement—a sufficient number to justify the operation theoretically. As it is impossible in every case to diagnose glandular and parametritic involvement, the abdominal route, including their extirpation, should be chosen. None of the thirty-three cases has yet shown a sign of recurrence.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Our Present Knowledge of the Neuron.

AT a recent meeting of the German Scientific and Medical Congress, Professor VERWORN (*British Medical Journal*) discussed the hypothesis that the nerve cells (ganglion cells) and nerve fibres (nerves) form one cellular entity, and that the nerve fibres, in the same way as the protoplasmic branches of the cell, are only terminals of the ganglion cell body. In this way the neuron is the cellular element of the whole nervous system. This doctrine the speaker referred to as having been founded on anatomical, embryological, and experimental investigations made about ten years ago. Since then many workers have been occupied with the finer structure and the connections between the various neurons. As regards the former point, fibrille had been shown to exist, which might be the basis for the conduction of stimuli. Concerning the links, the researches of HALL and others seem to have shown that in many cases there is a real continuity of neuron substance, and that the fibrille partially pass from one neuron to another. As to the function of the ganglion cells, Professor VERWORN described the theory of MATHIAS DUVAL, according to which the protoplasmic processes are contractile, fatigue during the course of the day leading to shortening, and producing the sensation of sleepiness, sleep being required to allow the processes to stretch again. This idea was described by Professor VERWORN as mere hypothesis. Another point in dispute was whether in every case nerve stimulation must pass through the ganglion cell; whereas there were some arguments against this, there appeared to be no doubt that these bodies are the real seats of specific nervous processes. Impulses have their origin in them, and in them is regulated the intensity and duration of these processes, the fibres having only the capacity to conduct, not modify.

Tuberculous Lesions.

EDMUND OWEN (*The Canadian Journal of Medicine and Surgery*) says three important facts in connection with tuberculosis should be remembered, viz., the disease is communicable, it is preventable, and it is curable. With reference to the latter, he draws the following conclusions: (1) Chronic inflammation of a joint in a child or young person is always tuberculous, except in those very rare cases in which it is due to hereditary syphilis or osteoarthritis. (2) Tuberculous inflammation may completely destroy a joint, and then leave it solidly and soundly synostosed, without the surrounding tissues or the skin having been implicated, as in *caries sicca*. (3) If tuberculous granulation-tissue breaks down into a fluid, that fluid is not pus, and the collection is not, properly speaking, an abscess, unless by bad fortune or by worse surgery it has become infected by septic micro-organisms. (4) The fluid collection is not to be treated as an abscess—by incision and drainage, that is—but is to be opened and emptied and scraped and cleaned of its unhealthy lining of granulation-tissue. Then the wound in the skin is to be completely closed by sutures, firm pressure is to be evenly applied, and the part is to be kept absolutely at rest—by a splint if practicable. (5) The author has failed to discover that iodiform is of any peculiar value in the treatment of tuberculous lesions. At any rate he has long since discarded it, and has not noticed any falling-off in the results in consequence. He says there may be a small class of cases of angular deformity of the spine which should be treated by *forcible rectification*; but the application of such a procedure must be very limited. In the treatment of vertebral *caries* he insists upon securing absolute rest by putting the child flat on his back in a pillowless bed. There are all sorts of schemes, corsets, apparatus and braces for treating spinal caries without keeping the child flat. But they are all wrong in theory and in practice; and if every case of spinal disease could from the beginning be treated by continuous rest in the horizontal position, there should be no more of those unsightly humps to invite speculative interference.

Researches in the Etiology of Cancer and the Pathogenic Blastomycetes.

LEOPOLD speaks of the results of his investigations of this subject as follows: There can be seen in the fresh tissue of almost every malignant neoplasm brilliant bodies, partly round, partly biscuit-shaped, in which can be shown reproduction and segmentation. These bodies, which were not confused with cood or degenerated cells, could be considered only as blastomycetes, by the fact that they were not changed in a solution of caustic soda or potassa, or in hydrochloric or nitric acid. After many trials pure cultures of blastomycetes were obtained from four malignant human neoplasms. These were obtained from a cancer of the ovary, from a cancer of the breast and the axillary glands, and from cancer of the uterus. The blastomycetes were therefore obtained from a fresh cancer of the ovary. The pure culture can be obtained from fresh carcinomatous tissue. The infection of this pure culture in the testicles of a rat was followed by the development of a large number of nodules in the peritoneum to which the animal succumbed. Blastomycetes taken from these nodules give pure cultures. Consequently, there is no doubt that blastomycetes can be the cause of malignant neoplasms in man, and that inoculated into an animal they cause a neoplasm in it, which destroys life.—*Annales de Gynecologie et d'Obstetrique.*

Physiology and Pathology of Inheritance, or what do we Inherit from our Parents?

DR. T. OLIVER, summing up the subject as to what is inherited from our parents, says that from a physiological point of view there is considerable evidence to show that mental, not less than physical, qualities are transmitted; that pathologically such a disease as hæmophilia is inherited; and that, where there is a family history of phthisis and cancer, there is, especially as regards phthisis, a greater liability to the disease than where a family shows no such record. Tuberculous disease is inherited, but only in the form of an enfeebled resistance on the part of the tissues.

Determination of the Functional Integrity of the Kidneys before Operation by Means of the Freezing-Points of the Blood and Urine.

HERMANN KUMMEL (*Munchener medicinische Wochenschrift*) gives these four points as being the most useful in indicating whether the state of "the other kidney" is such as to permit extirpation of the diseased organ: (1) Estimation of the urea. (2) Determination of the freezing-point of the blood. (3) Determination of the freezing-point of the urine, if possible, obtained from the two kidneys separately by ureteral catheterization. (4) Examination of the separated urine from the two kidneys, with and without the previous administration of phloridzin or methylene blue. The value of the blood investigation, which gives far more reliable results than the urea determination, rests on these facts. The degree of concentration of any solution is directly proportional to the distance its freezing-point lies below that of distilled water, and the normal freezing-point of human blood has been found to lie between 0.55° and 0.57°C. If the kidney function is impaired, an increase in the amount of solids takes place, with a corresponding lowering of the freezing-point. If one kidney has been thrown out of function, but the other is capable of carrying on the work unaided, i.e., when a nephrectomy would be permissible, the freezing-point will invariably be found to be normal, and, *per contra*, if this is lower than the limit given, operation is contraindicated. The urine examination is conducted on similar principles, but is less reliable in practice, owing to the physiological variations being much greater.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Effective Sterilization of Excreta from Typhoid Patients.

CUMMINS describes a method for the effective sterilization of excreta from typhoid patients. A 30-gallon iron "jackpot," containing 2 gallons of 1 in 20 carbolic solution, was kept boiling day and night, and the fæces and urine were emptied into this solution as soon as they were passed; there was practically no smell; the vapour had a heavy odour redolent of carbolic acid, but at 1 or 2 yards distance it was scarcely perceptible. The apparatus has been in use for nearly two months, during which time over 200 cases of enteric fever have been under treatment. No case of enteric fever has occurred among the orderlies employed in nursing and for pioneer work. A control experiment was made by inoculating one nutrient agar tube from the contents of a bedpan that the attendant was about to empty into the cauldron. The stool was poured into the cauldron, and 10 minutes after five nutrient agar tubes were inoculated from the contents of the pot. All the tubes were incubated at blood-heat for 24 hours. The tube used as a control showed about 100 well-marked colonies, while the five infected by the contents of the pot showed no sign of bacterial growth.

Fainting and other Fits.

It is astonishing what an amount of ignorance exists in regard to some of our commonest ailments, and as fainting and other fits are of such frequent occurrence, and as everyone should know how to act in an emergency of this kind, it will, we think, be of interest to our readers to know what a celebrated physician recently said:—"I wish you would do something to teach people the difference between a fainting fit and an epileptic fit. You see, a fainting fit is produced by the blood leaving the head. It is important to remember this, because it determines the method of treating these afflicted people when no doctor is near, and because everyone occasionally finds it his duty to go to the help of some person in a fit, without a moment for reflection, let alone inquiry. If a person faints, he ought to be laid down flat on his back, for this will facilitate the return of blood to his head. Indeed, nature has provided for this, for a person who faints will fall down and soon recover if no one interferes. On the other hand, a person with an epileptic or cataleptic fit, indicated by convulsions and frothing at the mouth, ought to be propped up, so as to facilitate the flow of blood from the head to the lower parts of the body, which may be still further promoted by slapping the palms of the hands. Now, I cannot account for it, but the fact is that all ignorant people, in an emergency, reverse this treatment. A person who simply faints is carefully supported in a chair, and the face is plied with cold water applications, fanned, the result being that the fainting is prolonged. On the other hand, a man who drops in the street with epilepsy or catalepsy is invariably laid flat on his back, which in some cases is enough to kill him."

An Important Legal Decision: Physicians not liable when they act in Good Faith.

ACCORDING to the *Journal of the American Medical Association*, the Supreme Court of Massachusetts, in full bench, has given out a decision that is of the greatest interest and importance to medical men. It holds that physicians under the Massachusetts statutes are not liable for negligence in erroneously certifying a person as insane or inebriate, provided they do so in good faith and without malice. Even

if their examination was a careless one, their action was not the proximate cause of the commitment, as a judge must, under the statutes, determine that; and secondly, they should, in accordance with public policy, be, like other witnesses, considered privileged and protected against liability as long as they act in good faith and without malice. The opinion, says the Journal, was a majority one, but, while not unanimous, it is sufficient to protect Massachusetts physicians from vindictive damage suits, and may be a valuable legal precedent elsewhere.

Medico-legal Relations of the X-rays.

THE routine employment of the x-ray in cases of fracture, says J. W. WHITE (*American Journal of Surgery and Gynecology*), is not at present of sufficient definite advantage to justify the teaching that it should be used in every case. If the surgeon is in doubt as to his diagnosis, he should make use of this as of every other available means to add to his knowledge of the case, but even then he should not forget the grave possibilities of misinterpretation. There is evidence that in competent hands plates may be made that will fail to reveal the presence of existing fractures, or will appear to show a fracture that does not exist.

In the regions of the base of the skull, the spine, the pelvis, and the hips, the x-ray results have not as yet been thoroughly satisfactory, although good skiagraphs have been made of lesions in the last three localities. On account of the rarity of such skiagraphs of these parts, special caution should be observed, when they are affected, in basing upon x-ray testimony any important diagnosis or line of treatment.

As to questions of deformity, skiagraphs alone, without expert surgical interpretation, are generally useless and frequently misleading. The appearance of deformity may be produced in any normal bone, and existing deformity may be grossly exaggerated.

It is not possible to distinguish, after recent fractures, between cases in which perfectly satisfactory callus has formed and cases which will go on to non-union. Neither can fibrous union be distinguished from union by callus in which lime salts have not yet been deposited. There is abundant evidence to show that the use of the x-ray in these cases should be regarded as merely the adjunct to other surgical methods, and that its testimony is especially fallible.

The evidence as to x-ray burns seems to show that in the majority of cases they are easily and certainly preventable. The essential cause is still a matter of dispute. It seems not unlikely, when the strange susceptibilities due to idiosyncrasy are remembered, that in a small number of cases it may make a given individual especially liable to this form of injury.

In the recognition of foreign bodies the skiagraph is of the very greatest value; in their localization it has occasionally failed. The mistakes recorded in the former case should easily have been avoided; in the latter they are becoming less and less frequent, and by the employment of accurate mathematical methods can probably in time be eliminated. In the meanwhile, however, the surgeon who bases an important operation on the localization of a foreign body buried in the tissues should remember the possibility of error that still exists.

It has not seemed worth while to attempt a review of the situation from the strictly legal standpoint. It would vary in different States and with different judges to interpret the law. The evidence shows, however, that in many places and under many differing circumstances the skiagraph will undoubtedly be a factor in medico-legal cases.

The technicalities of its production, the manipulation of the apparatus, etc., are already in the hands of specialists, and with that subject also it has not seemed worth while to deal. But it is earnestly recommended that the surgeon should so familiarize himself with the appearance of skiagraphs, with their distortions, with the relative values of their shadows and outlines, as to be himself the judge of their teachings, and not depend upon the interpretation of others who may lack the wide experience with surgical injury, and disease necessary for the correct reading of these pictures.

THERAPEUTICS & PHARMACOLOGY.

Exclusive Soup Diet and Rectal Irrigations in Typhoid Fever.

BASED on his statements upon a personal experience of one hundred and fifty-three cases in private and hospital practice during the last ten years, A. SIEBERT gives the following as the results of this mode of treatment: (1) Delirium, headache, insomnia, nausea, vomiting, and tympanites usually disappeared within forty-eight hours of treatment. (2) Tympanites, nausea, and vomiting never developed in any patient, even when complicating pneumonia was present. (3) The fur on the tongue disappeared within a few days. (4) Appetite came frequently on the fourth day of treatment, even when the thermometer registered 102° to 103° F. (5) Even excessive diarrhoea (fifteen to twenty-five daily stools) disappeared invariably within the first week of treatment. (6) In all uncomplicated cases the temperature began to decline within twenty-four to forty-eight hours after the beginning of treatment, and invariably would reach the normal figure within ten to twelve days. (7) In cases complicated by pneumonia, nephritis, or plebitis when treatment began, the temperature usually remained in accord with the inflammatory conditions found until these also disappeared; while the cerebral, gastric, and intestinal disturbances usually subsided as rapidly in the uncomplicated cases, excepting anorexia. (8) Complications, when not present at the start, were very rare, and then usually developed within the first two days. (9) Intestinal hemorrhage was noticed in three cases, none ending fatally. Perforation did not occur. Five feedings were given during the day. After an initial purge the patients seemed to do as well for forty-eight hours on cold water alone as on any kind of food. Then soups were given made of barley, oatmeal, rice, and peas, strained and well salted and peppered. Two days later lentil soup and the yolk of a fresh egg were added to the oatmeal, rice, and barley soups. An adult was allowed half a pint of two kinds of soup alternating every three hours. Five to fifteen drops of dilute hydrochloric acid were given before each meal unless hyperacidity prevailed, but no other medicine. Cold water was allowed *ad libitum*.—*North western Lancet*.

For Locomotor Ataxia.

DR. S. LEDUC, Professor of Medicine in the School of Medicine at Nantes (*Gazette médicale de Nantes*), basing his practice on the theory that "the syphilitic origin of locomotor ataxia is scarcely contested to-day, for a past history of syphilis is found in nearly all ataxia," has injected daily into the muscles of the patient's thigh two grammes (about thirty minims) of the following solution:—

R	Corrosive sublimate	} each 3 grains.
	Recrystallized sodium chlorite	
	Distilled water		... 300 minims.
M.		

It is said that an amelioration was at once manifest. Treatment was continued for periods of three weeks, followed by remissions of fifteen days. Six years from the commencement of the treatment the patient has lost the knee-jerk, and, though some lightning pains persist, he walks well, even at night, and leads a very active life.

For Varicose Veins.

R	Barii chloridi	...	...	2
	Aque destil	...	q.s. ut ft. sol.	
	Lanolini	...	...	60
	Ol. amygdalis dulc.	...	...	1

M. S. Use three times daily with friction, where blue veins shine through the skin.

—ALEX. RIXA.

For Pruritus Ani.

R	Fluid extract of hamamelis	...	...	1
	Fluid extract of ergot	...	...	2
	Fluid extract of hydrastis	...	...	2
	Compound tincture of benzoin	...	...	2
	Carbolized olive or linseed oil (5 per cent.)	...	...	1
M.	S. Shake well and inject from one to three drachms daily.			

Correspondence.

IN DEFENCE OF CIVIL ASSISTANT SURGEONS.

(Concluded from last issue.)

TO THE EDITOR, "INDIAN MEDICAL RECORD."

CHARGES OF JAILS.

Sir,—Colonel Sahib states that Indian officers as a rule fail to enforce discipline. There is no doubt that as disciplinarians European officers are superior; but the reason why Indian officers fail is simply that they are not properly trained. When, *after proper training*, they have worked satisfactorily in the highest offices in all departments of Government, it may be reasonably assumed that they will make good Jail Superintendents as well, if only they are given opportunities for training themselves. Deputy Magistrates fail, because, as has already been stated, the work is forced on them, and knowing that it is only temporary, and not strictly departmental, and therefore carrying little responsibility, they take no interest in it, and do not care to be strict in their dealings with the jail subordinates. Of course this is culpable neglect; but it is the inevitable result of the system. Let Assistant Surgeons be put in charge. To them the work will be departmental, and they will be bound to pay proper attention to it. Let them know that their jail administration will affect their prospects quite as much as their medical work. Let them actually do the work so that they may feel the responsibility. Let incompetent men be summarily dealt with, and in a short time their defects will disappear. It is not one's nationality that makes one a good disciplinarian and administrator—it is education and training.

PLACING OF CIVIL ASSISTANT SURGEONS UNDER MILITARY ASSISTANT SURGEONS.

"Every Civil Assistant Surgeon, whether from Calcutta, Bombay, the Punjab, or elsewhere," may not be better than the "Military Officer." As I have said above, there are competent and incompetent men in all services. There are men among Civil Assistant Surgeons who are unfit to be compounders, and there are men among Military Assistant Surgeons who are in every way as desirable as one could wish, and *vice versa*; but judging from the ordinary standards of comparison, there can be no doubt that, as a rule, taking everything into consideration, Civil Assistant Surgeons are better educated than their military namesakes. Colonel Sahib says that the former cannot express themselves in ordinary understandable English. Whether this is a fact or not, especially with reference to the Assistant Surgeons of the present day, I shall leave your readers to judge. To my mind, though on account of the fact that their mother-tongue is English, Military Assistant Surgeons can usually express themselves with greater facility if the language actually written and spoken by them be compared with that of Civil Assistant Surgeons—in point of grammar, etc., there will not be much difference. As regards professional qualifications, all India knows that in the ranks of *locally educated* Civil Assistant Surgeons there are men who have admittedly risen to the top of the professional ladder, and who, as practising physicians and surgeons, are second to none; while among Military Assistant Surgeons (excepting those who have had a subsequent education in Britain and have become members of the I. M. S.), in spite of "professional departmental and military experience," and the fact that only "selected" men are put in civil medical charge, it would be hard, if at all possible, to find even one with anything like a professional reputation.

To say that want of means prevents the Military Assistant Surgeon from prosecuting his studies through the local Universities, that he is a "more intelligent and better man," and that "in the end it is his thorough know-

ledge of medicine, surgery and midwifery which has manifestly led him forward," are to put forward arguments which, to an impartial observer, must appear hopelessly lame. Military medical pupils study for four years at Government expense. They can easily be made to study one year more and pass either the L.M.S. or the M.B. examination. In view of the fact that their mother-tongue is English, and in accordance with the practice in other departments of Government, the condition of passing the F.A. need not be compulsory. The present competitive examination for admission into the medical colleges may be considered sufficient, or its standard slightly raised. As a matter of fact, the real reasons for not requiring them to pass the University tests are: (1) That men with superior qualifications are not considered necessary, as Military Assistant Surgeons do the same work in British regiments which Hospital Assistants do in Indian regiments, and are intended to be officials of the same type as the latter; and (2) that it is feared that if the University test be made compulsory, the number of men required will not be able to pass it. Again, as everybody knows, it is not because they are more intelligent men, nor because they have better professional knowledge, that they have preference as regards Civil Surgeoncies. The factors which lead them forward are colour (if the authorities *would* only get colour-blind, how many anomalies would stop!), "imperial considerations," "war purposes," and so on. Their actual inferiority in rank and education has often been admitted by Government itself (G. O. G. G. No. 550, dated 15th June 1868, paragraph 469). Let the Government give them Civil Surgeoncies if it has reasons for doing so, or if it is "disposed" to favouritism; but why unnecessarily add insult to injury by putting them over the heads of Civil Assistant Surgeons in the same district? If they have superior or equal British or Indian degrees, nobody objects; if not, put only Hospital Assistants under them, and there the matter ends. Under the present system not only Civil Assistant Surgeons with Indian degrees, but even those holding British degrees, can be put under a common diplomat Military Assistant Surgeon, which is simply preposterous. Imagine a D. M. C. C. sitting in judgment over the diagnosis and treatment and reporting on the professional attainments of men at whose feet he might sit for years. Though it is true that only "selected" men are put in civil medical charge, but as these come to the Civil Department after a long term of grinding subordination, during which they have to do bottle-washing with eyes and ears closed, they make very little progress as practical physicians and surgeons. Besides, in military hospitals the diseases met with are not so various as in civil hospitals, and it is an admitted fact that an officer in civil practice is, as a rule, a better all-round practitioner than one in military practice. In stations where a Civil Surgeon is available, people seldom call in a purely military surgeon. The Military Assistant Surgeons who are "selected" for civil employment are consequently little better than "old fossils of metamorphosed apothecaries," and the records of their actual professional work in civil hospitals prove this.

Colonel Sahib says that "there are very very few (Military Assistant Surgeons) who would not challenge TOMTIT, M. B., to sit with them unprepared for an examination in surgery, medicine and midwifery." We live to learn,—and I have lived to learn that an officer of the I. M. S. thinks it consistent with dignity and culture to indulge in personalities of this sort; but that, of course, is another story. Leaving my unworthy self aside—for I am but a poor little bird—I gladly accept the challenge on behalf of Civil Assistant Surgeons; but if Colonel Sahib has so poor an opinion of Indian intellect, and is so sure of an easy victory, I might perhaps be permitted to ask how it is that Indian youths are so feared that they are not even permitted to compete for the Military Assistant Surgeon's service (though, of course, only Hospital Assistants

would care to do it if allowed), and why Colonel Sahib's brother officers are so frightened by the very mention of a simultaneous I.M.S. examination? Prepared or unprepared, let Indians have but a fair chance in open competition (make your standard what you will), and they will cheerfully abide by the result. Military Assistant Surgeons may challenge, but if an examination were really to be held, neither they nor the Government would be inclined to repeat the experiment.

As to whether the title of "Assistant Surgeon" has been deservedly gained or not, there will always be two opinions until "Military" Assistant Surgeons pass the same professional examinations as real Assistant Surgeons do.

ABOLITION OF SEPTENNIAL EXAMINATIONS.

Granting, for argument's sake, that what "LIEUT.-COL., I.M.S." states is true, what good do these examinations do? He himself says that "not till the examination is nigh will the Civil Assistant Surgeon read up his professional books," and that "once through the ordeal, all interest in further attainments is gone, and he leans back in apathy." Do the examinations then really improve his professional knowledge, and is his actual professional work better after he has passed these? Colonel Sahib's own remarks point out that the reply is in the negative. As regards the "callousness" of which he complains, it is simply due to the fact that, as stated above, a Civil Assistant Surgeon, as soon as he enters service, "finds too late" that his prospects depend not upon honesty, hard-work and professional ability, but upon *salaams*, *dalees*, *muzzurs*, manufacture of figures, and so on. His professional work may be ever so good, he may do specially meritorious plague and famine service, but for him there is no special promotion which, under similar circumstances, is given to officers in all other departments of Government—he must pass the inevitable septennial. On the other hand, he may be a mere *salaaming* and *dalee*-giving machine and incompetent, otherwise he has only to pass the septennial "with the help of a few aids," and he gets the higher grade far more easily than his able and hard-working colleague, and, if anything, a better station too; for there is nothing which kowtowing cannot achieve. Besides, what is the use of sending elaborate annual confidential reports if the septennial must be the criterion of fitness for promotion? And if Assistant Surgeons are really so ignorant and callous as regards professional attainments as Colonel Sahib says, how is it that in the majority of cases Civil Surgeons make favourable remarks annually regarding their abilities? Is it because ability is judged by *salaams*, or are the Assistant Surgeons really not so bad after all? I repeat that these examinations are not only useless, but positively injurious, and that the present promotion rules are the principal causes of apathy and callousness.

ASSISTANT SURGEONS SHOULD NOT BE REQUIRED TO COMPOUND PRESCRIPTIONS CONTAINING POISONS.

The main question is not whether compounding prescriptions is or is not *infra dig*, but whether it is possible to actually carry out the orders contained in the circular. As I have said in my previous letter, almost every prescription contains some poison or other, and if the instructions laid down were to be complied with, the Assistant Surgeon or Hospital Assistant in charge of a dispensary would have practically to dispense all prescriptions (and these would not be a few) with his own hands, while the compounders would have nothing to do. I agree with Colonel Sahib in thinking that the Assistant Surgeon should exercise strict supervision. I have myself suggested this. But I submit that it is absurd to expect him to compound prescriptions personally as required by the circular. As a matter of fact, the authorities have already seen the utter absurdity of the thing, and have modified the order. Now, stock prescriptions may be dispensed

by the compounders under the supervision of the officer in charge, and only other written prescriptions need be compounded by the latter. But in actual practice even this cannot be done. An Assistant Surgeon goes out at 11 A.M. after his hospital work is over, and does not return until 4 P.M. He is permitted to do this, because he is not a whole-time officer, and is allowed to do private practice. The Civil Surgeon in the meantime sends some urgent prescription containing poisons. Are these to remain undispensed till the Assistant Surgeon returns? Common sense says that the order cannot be carried out in any case. It is now two years since the circular was issued, and all this time it has simply been reposing in the files. Why not give it a quieter and more permanent resting-place in the W. P. B.? To my mind, merely on account of the Delhi poisoning case, there was no necessity whatever for altering the previous rule, because the large majority of people in big cities buy their medicines from private firms, and do not, and cannot, get these dispensed by Assistant Surgeons and Hospital Assistants; but if the Government wishes to be so particular, it should be prepared to spend a little more, abolish the compounder class, and appoint Hospital Assistants instead, though, for the matter of that, mistakes will occasionally occur, even if I.M.S. officers themselves turn compounders.

Yours, &c.,

TOMTIT, M.B.

THE I.M.S. IN DIFFICULTIES: WHY NOT USE LOCAL MEN.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to the proposal which has been recently sanctioned by Government to temporarily employ twenty private medical practitioners to relieve the overworked officers of the Indian Medical Service, it is not clearly stated whether they will be put on military or civil duties. Evidently they will be placed in charge of civil stations. Nobody will question the necessity of making some temporary arrangement for relieving the extra strain put on the Indian Medical Service on account of famine, plague and war. But to employ private practitioners to hold charge of civil stations will be an injustice both to the Civil and Military Assistant Surgeons, whose fitness for such posts is beyond dispute. Assistant Surgeons have on many occasions held charge of civil stations, with satisfaction to Government. It might be urged, however, that Assistant Surgeons cannot be placed in charge of large and important districts, but these appointments may be filled up by the available number of European medical officers, and the smaller districts may be placed in charge of the former. Assistant Surgeons of tried merit and ability should be selected for filling up temporary vacancies. It is rather unfair to employ outsiders when competent men already in the service are available. The pay of the private practitioners will be from Rs. 500 to 600 per mensem, whereas the cost of employing Assistant Surgeons to do the same work would be much less.

It is a matter of regret that even the number of appointments of Assistant Surgeons in permanent medical charge of districts in several provinces, still falls short of that sanctioned by Government. In Bengal seven Civil Surgeoncies have been sanctioned for Assistant Surgeons, but four only have been given to them.

Yours, &c.,

JUSTICE.

Government Medical Gazettes.

BENGAL.

Asst. Surgn. Kunja Lal Sanyal, Teacher of Medicine, Midwifery and Physiology, Dacca Med. School, is apptd., on return from leave, to act at the Chapra Dispy., during the absence, on deputation, of Asst. Surgn. Uma Charan Roy.

Asst. Surgn. Khirode Chandra Roy, of the Uluberiah Subdivn. and Dispy., Howrah, is apptd., on return from leave, to act at the Barisal Dispy., in the Backergunge dist., during the absence, on leave, of Asst. Surgn. Badrika Nath Mukerjee.

Asst. Surgn. Sarat Chandra Sur did supy. duty at the Med. Coll. Hosp., Calcutta, from the 18th Jan. 1901 to the 1st Feb. 1901.

Asst. Surgn. Badrika Nath Mukerjee, of the Barisal Dispy. on leave, is apptd. to act at the Jamui Subdivn. and Dispy., in the Monghyr dist., during the absence, on leave, of Asst. Surgn. Bhola Nath Pal.

Senior Asst. Surgn. Bola Nath Pal, in med. ch. of the Jamui Subdivn. and Dispy., in the Monghyr dist., is allowed privilege leave for 2 months and 17 days.

Asst. Surgn. Nobin Chunder Dutt is apptd., from the 15th Oct. 1900, to have med. ch. of the Palamau dist., vice Asst. Surgn. Rai Raj Mohan Banerjee, Bahadur, retired, but will continue to act at Noakhali.

Asst. Surgn. Kunja Lal Sanyal is promoted to the senior grade from the 15th Oct. 1900, vice Asst. Surgn. Nobin Chunder Dutt.

The undermentioned Asst. Surgns. of the first grade are promoted to the senior grade :—

Asst. Surgn. Kasi Nath Ghosh; Asst. Surgn. Behari Lal Pal; Asst. Surgn. Durga Nanda Sen.

Capt. J. T. Calvert, I.M.S., is apptd. to act as Civil Surgn. of Chittagong, during the absence, on deputation, of Maj. D. M. Moir, I.M.S.

Maj. E. H. Brown, I.M.S., Offg. Civil Surgn. of the 24-Perganna, is confirmed in that appt.

Capt. E. A. R. Newman, I.M.S., is apptd. to be Civil Surgn. of Mymensingh, vice Maj. E. H. Brown, I.M.S., transferred, but will continue to be on tempy. mily. duty.

BOMBAY.

Hosp. Asst. Chellaram Tillumal, in ch. Dispy., Garhi Yasin, privilege leave for three months from the 18th Sept. 1900.

Asst. Surgn. W. B. George, I. S. M. D., privilege leave from 25th to 31st Aug. 1900.

Hosp. Asst. Shaik Jamal Hussein was attached to the Alia Island Quarantine Hosp. from 18th to 22nd Oct. 1900.

The undermentioned having passed their final-exam. in the Byramji Jijibhoy Med. Schools, Poona and Ahmedabad, and the Med. School, Hyderabad, are admitted into the service as Hosp. Assts., Civil Dept., from 3rd Sept. 1900. They will bear gen. numbers marked against their names and are placed on gen. duty at the stns. mentioned opposite their names from 3rd Sept. 1900 :—

Kavaji Bamanji, Ahmedabad; Radhakishin Tahilram, Hyderabad; Wamon Ambaji Warty, Poona; Munjunath Timappa Sirsikar, Poona; Begraj Chandumal, Hyderabad; Manukh Ranobhed, Ahmedabad; Luxumon Murari Sali, Poona; Litarum Nenumal, Hyderabad; Vithal Mahalapa Khawadkone, Poona; Shaik Usman walad Shaik Mahomed Hussein, Poona; Moro Pandurang Kolatkar, Poona; Buldevsing Vajesingh, Ahmedabad; Jamiatram Pransukhram, Ahmedabad; Shivandas Bachomal, Hyderabad; Vadilal Jannadas, Ahmedabad; Wasudev Arjun Sawant, Poona.

The undermentioned Hosp. Assts. who were admitted into the Dept. as Hosp. Assts. as a tempy. measure, and whose names were notified, are apptd. Third Class Hosp. Assts. on the permanent estab. from 24th Oct. 1900 to complete estab. :—

Narayan Vitboji Sawant; Sitaram Balwant; Ibrahim walad Ameen; Dhondu Krishna; Anant Krishna Salghar.

The undermentioned having passed his final exam. in the Med. School, Ahmedabad, is admitted into the service as Third Class Hosp. Asst., Civil Dept., from 6th Nov. 1900, vice Hosp. Asst. Krishnaji Ramchander, dismissed from the service :—

Gorishanker Liladher.

The undermentioned have passed the exam. and are admitted into the Byramji Jijibhoy Med. School, Poona, from 1st Nov. 1900 :—

Civil Medical Pupils.

Balwant Ramji Marathe; Vishwanath Govind Kulkarni; Shivbasappa Shidappa; Lalasing Dhanasing; Mohomed Ibrahimkhan; Anandras Shamrao; Ganpat Baburao Duvi; Sayad Budhain walad Sayed Hosein.

Native Military Pupils.

Udhav Sakharam Shendge; Shaik Husein Abdul Nabi; Bapu Ramchandra; Govind Dinkar Paranjpe; Gajanan Narayan; Krishnaji Govind Lobokare; Yeshwant Kishnaji Bhide; Kaabinath Balwant Bohoni; Shaligram Dinker Joshi; Kashinath Ramchandra; Keshav Wamon Joshi; Wadudeo Arimuta; Vasudev Banda.

Stipendiary Pupils.

Baghwandra Narayensao; Baghunath Vishwanath; Kashinath; Damodher Kulkarni; Damodher Bhasker; Hari Gopal Gadgil.

Paying Pupils.

Keshav Narayan; Dhondu Narayan.

State Pupils.

Sadashiv Ramchandra; Balobin Rawji; Dattatraya Chintamon; Maheshwar Krishna; Dattatraya Vayajpath.

The undermentioned Third Class Hosp. Assts. are dismissed from the service :—

Krishnaji Ramchander; Vishnu Balwant Bhide.

BURMA

Hosp. Asst. Ramprasad Sinha held ch. of addnl. duties at the Civil Hosp., Mogaung, Myitkyina dist., from the 29th Nov. to the 9th Dec. 1900, vice Hosp. Asst. M. A. Aubaranam Pillay on other duty.

Hosp. Asst. Lukmi Dass relinquished ch. at the Police Hosp., Mogaung, on the 5th Dec. 1900 and assumed ch. of his duties with the Kamalg Escort on the same date.

Hosp. Asst. Mahomed Haniff relinquished ch. of his duties at the Police Hosp., Kindat, Upper Chindwin dist., on the 29th Nov. 1900 and assumed ch. at the Outpost Hosp., Thamanthi, Upper Chindwin dist., on the 11th Dec. 1900.

Hosp. Asst. M. A. Aubaranam Pillay relinquished ch. of his duties at the Outpost Hosp., Kamalg, Myitkyina dist., on the 8th Dec. 1900 and assumed ch. at the Civil Hosp., Mogaung, on the 9th Dec. 1900.

Hosp. Asst. M. A. Aubaranam Pillay made over, and Hosp. Asst. J. P. S. Mullins assumed, ch. of addnl. duties at the Civil Hosp., Kamalg, Myitkyina dist., on the 8th Dec. 1900.

Hosp. Asst. Rattan Chand. on return from India, assumed ch. at the Gen. Hosp., Rangoon, on the 15th Dec. 1900 as a supy.

Hosp. Asst. Rattan Chand relinquished ch. at the Gen. Hosp., Rangoon, on the 18th Dec. 1900 and assumed ch. at the Ry. Dispy., Wuntho, Katha dist., on the 23rd Dec. 1900.

Hosp. Asst. Shaik Abdul Aziz, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 14th Dec. 1900, as a supy.

Hosp. Asst. Shaik Abdul Aziz, on transfer to the Chin Hills, relinquished ch. of his duties at the Gen. Hosp., Rangoon, on the 18th Dec. 1900.

Hosp. Asst. J. P. S. Mullins, on proceeding to Myitkyina to give med. evidence, relinquished ch. at the Outpost Hosp., Kamalng, Myitkyina dist., on the 30th Nov. 1900, and on return from the same assumed ch. at the Outpost Hosp., Kamalng, Myitkyina dist., on the 8th Dec. 1900.

PUNJAB.

Lieut.-Col. J. Clarke, M.D., I. M. S., made over ch. of the duties of Supdt. of the Sialkot Jail to Sayad Wali Shah, Extra Asst. Commr., on the 19th Nov. 1900.

Sayad Wali Shah, Extra Asst. Commr., made over ch. of the duties of Supdt. of the Sialkot Jail to Asst. Surgn. Khazan Chand on the 24th Nov. 1900.

Lieut. J. T. Weston, M.D., Senior Asst. Surgn., made over charge of the duties of Supdt. of the Hissar Jail to Khawaja Tasadduq Hussain, B.A., Extra Asst. Commr., on the 29th Dec. 1900.

Khawaja Tasadduq Hussain, B.A., Extra Asst. Commr., made over ch. of the duties of Supdt. of the Hissar Jail to Lieut. J. T. Weston, M.D., Senior Asst. Surgn., on the 15th Jan. 1901.

Hosp. Asst. Firoze Din, doing gen. duty at Hissar, was granted one month's privilege leave from the 17th Jan. 1901.

On transfer from Jullundur, Asst. Surgn. Udai Bhan. Imperial List, was placed on gen. duty at the Pind Dadan Khan Dispy., Jhelum Dist., on 15th Dec. 1900.

On being relieved of the ch. of the Gujranwala Dispy. Asst. Surgn. Balio Singh was placed on special plague duty, in the Jullundur and Hoshiarpur Dist., from the 21st Jan. 1901.

Asst. Surgn. Hardial Singh was apptd., as a tempy. measure to the Hoshiarpur Civil Hosp. from the 18th Jan. 1901, *vice* Asst. Surgn. Harnarain, granted privilege leave for one month from that date.

Capt. G. M. C. Smith, I. M. S., assumed ch. of the Civil Medical duties of the Kangra Dist. in addn. to his Mil. duties, on the 14th Jan. 1901, relieving Lieut.-Col. W. E. Griffiths, I. M. S.

CENTRAL PROVINCES.

Hosp. Asst. Basant Rae, on being relieved of the ch. of the Rankhet Dispy., to the ch. of the Crosthwaite Hosp., Naini Tal, as a tempy. measure.

Hosp. Asst. Muhammad Roeban, attached to the Mahron Dispy. in the Jhansi dist., held ch. of the Lalitpur Dispy., from 6th to 14th Jan. 1901.

Civil Asst. Surgn. Nogendra Nath Dass, from Plague duty, Jhansi, to that in the Ballia dist.

Capt. P. F. Chapman, I. M. S., who services have been permanently placed at the disposal of the Chief Comr. Central Prov., by the Govt. of India, is confirmed as Civil Surgn., Chhindwara, from the 15th April 1900, but will continue as Civil Surgn., Seoni.

Major J. O. Pinto, L. M. S., whose services have been permanently placed at the disposal of the Chief Comr. Central Prov., by the Govt. of India, is confirmed as Civil Surgn. Balaghat, from the 15th April 1900, but will continue as Civil Surgn., Chhindwara.

On being relieved by Major H. E. Banatvala, I. M. S., 2nd grade Civil Asst. Surgn. Dalip Singh, in tempy. civil medical ch. of the Nimar Dist., is directed to do duty under the orders of the Civil Surgeon, Hoshangabad.

One month's leave without pay is granted to Civil Hosp. Asst. Jotindranath Ghose, on general duty at Nagpur. Civil Hosp. Asst. Kehiroda Kumar Ghose is directed to do duty under the orders of the Civil Med. Offr., Bhandara.

Second Class Civil Hosp. Asst. Amin-ud-din, attached to the Jail and Police Hosp., Khandwa, is granted privilege leave for three months from the date he is permitted to avail himself of it.

Civil Hosp. Asst. Vithal Raghoba Lande, on gen. duty at Nagpur, is apptd. to the Jail and Police Hosp., Khandwa, during the absence on leave of Amin-ud-din.

N.-W. P. OUDH.

The services of Major L. J. Pisani, F.R.C.S., I.M.S. (Bengal), are replaced at the disposal of the Govt. of the N.-W. P. and Oudh.

The services of Capt. E. J. Morgan, M.B., I.M.S. (Bengal), are replaced tempy. at the disposal of the Govt. of the N.-W. P. and Oudh.

Civil Asst. Surgn. Kedar Nath Basu, attached to the Sadr Dispy., Shahjahanpur, to hold ch. of the civil med. duties of that dist., in addn. to his own duties, from the 16th Jan. 1901.

Major L. J. Pisani, I.M.S., whose services have been replaced at the disposal of this Govt. by the Govt. of India, to be Civil Surgn. of Budana.

Capt. E. J. Morgan, I.M.S., whose services have been tempy. replaced at the disposal of this Govt. by the Govt. of India, to officiate as Civil Surgn., Banda.

Civil Asst. Surgn. Munna Lal, on being relieved from the Civil Med. Ch. of Banda to that of Jalaun.

Lieut.-Col. E. S. Brander, I.M.S., Civil Surgn., from Furrakhabad to Shahjahanpur.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

BROCKMAN.—On the 31st January 1901, at Southampton, England, the wife of Captain V. G. Drake-Brockman, I.M.S., of a son.

NOTICES TO CORRESPONDENTS.

B. B. B. writes:—"My girl-wife, aged about 14 years, is in family way for six months. She was vaccinated once while her age was about 2 or 3 years. Now a virulent type of small-pox is raging in our quarters. I intend to revaccinate all the members of my family. Will you kindly advise me whether I can revaccinate my wife in this stage of her pregnancy?"—(Most certainly, vaccinate her.—Ed., I.M.R.)

D. G. (Bangalore)—The delay in acting on the reorganisation scheme sanctioned for Military Hospital Assistants as they affect men in Madras is a real grievance.

H. C. E. (Bombay)—We think you might gain admission to the Calcutta College if you could procure certificates of your attendance on lectures, etc., from Bombay.

"John Brown."—If the writer signing himself thus would kindly make himself known to us *confidentially*, we might be in a position to publish his communications.

M. M. (Chandauli)—Mitchell Bruce and Whitla are two good works on Materia Medica.

B. A. N. (Delhi)—The subject of your letter has already been dealt with in our correspondence columns.

A. P. (Bombay)—The pamphlet is good in its way, but the methods described need modernising.

H. E. S. (Penang)—Many thanks. We have dealt with your letter.

A. S. N. (Rupupa)—You will find all needed information regarding the I. M. A. and its Provident Fund in the *Record*.

C. P. (Madras)—Your papers are appreciated.

M. L. (Ulubaria)—Medical practice in India requires State control. American bogus diploma-holders would vanish once a Registration Act came into force.

B. M. S. (Calcutta)—Thanks for your interesting paper.

R. S. P. (Bhavani)—You will find all the information you require about British diplomas in the Medical Directory of the Indian Empire.

S. M. V. (Lucknow)—Try the intra-uterine stem.

ORIGINAL ARTICLES.

EXPERIENCES WITH THE MEDICAL DEPARTMENT OF THE ARMY IN THE SOUTH AFRICAN WAR.*

By JOHN CHIEME, F.R.C.S., EDIN.,

Professor of Surgery in the University of Edinburgh.

In bringing before the Society my experience in South Africa, I must keep in mind that my stay there was divided into two distinct periods, from the beginning of April until the end of June, from the end of June till the end of August; from Capetown to Norval's Pont in the first period, from Norval's Pont back to Capetown in the second period. At first I was simply a consultant, who advised in individual cases; afterwards the allegations regarding the Army Medical Department had reached Africa, and it was evident that other questions would necessarily occupy my attention.

These questions are still *sub judice*, and cannot yet be discussed. Whatever may be the verdict of the Commission, every one must allow that the question of Army Medical reform is only a subsection of wider question of Army reform.

I purpose saying a few words regarding the lessons which I have learned in the hospitals in South Africa. I will speak of these lessons under the following heads:—*Ambulance, Anaesthesia, X-rays, Hospital trains and ships, Bullet wounds, Injuries of the head, Injuries of blood-vessels, Injuries of thorax and abdomen, Medical cases, Sanitation, Burning vs. Burying*, and then close with a word on the *Work of the Civil Surgeon in South Africa*.

The four great hospitals in the neighbourhood of Capetown were Wynberg No. 1, Wynberg No. 2, Rondebosch No. 3, and Woodstock No. 4. Much has been said about Woodstock. It is an old building near Capetown, lying on the shore, and, like all old buildings in South Africa, it was infested at one time with animal parasites, which gave rise to much discomfort. On my second visit great improvement had taken place in this particular. I never noticed any smell from the town drains, which opened into the bay in the vicinity of the hospital. The drain for surface water was a short one. The drain for sewerage opened 300 yards from the shore, and the current carried the dejects away from the hospital, and, judging from the excellent results of the surgical cases which I saw there, I cannot look upon the hospital as an unhealthy one.

The dejects from the hospital, after being mixed with izal, were buried in a trench on the shore. I examined these trenches, and found no smell whatever.

My time was principally spent in the Wynberg and Rondebosch Hospitals, two days a week to each hospital. Both were on excellent hospital sites.

Let me first say a word regarding the conveyance of the soldiers from the trains to the hospitals. As I lived at Wynberg, I saw them arrive by train, and I saw them immediately after admission to the hospital. Every one must clearly differentiate between hospital trains and

ordinary trains carrying invalids. In the former, the soldiers were most comfortable: in the latter, it was very often the reverse. I am fully satisfied that in the future some form of portable cooking-stove must be carried in these ordinary trains, by means of which simple food may be cooked for the soldiers. You cannot trust for a supply of food at the stopping places. It was often very sad to see how worn and weary the poor fellows were on their arrival. Much was done for them at the Wynberg Station by good, kind ladies, who were always in attendance. They must, if possible, in future campaigns be well fed on the journey.

As regards their conveyance from the trains to the hospital, at Wynberg this was done in ambulance carts. On a smooth road an ambulance cart is fairly comfortable; but, in my opinion, the McCormack-Brook ambulance litters are certainly more comfortable than ambulance carts, and I think it will be a question of the future if these litters should not take the place of carts in the conveyance of patients from trains to hospitals. I came across a member of the Imperial Yeomanry who had been in both as an injured man, and, in his opinion, there was no comparison in the relative comforts. We see the same thing in civil life—the greater comfort of the litter as compared with the waggon. These litters were on Rickshaw wheels, with rubber tyres, and worked most smoothly.

A question for the future will arise, can any improvement be made on ambulance waggons for the removal of patients from the battlefield to the nearest hospital? The Boers used, as a rule, waggonettes and Cape carts.

I have frequently heard our soldiers say that they would rather travel in an ox waggon than in an ambulance cart. Surely some improvement could be made. Possibly an open competition would teach us some lessons as to the best form of ambulance waggons. The essentials are strength, easy turning, easy motion, and the patients easily reached by the attendant. The stage-coaches in South Africa are hung on leather. No doubt they are the results of evolution and the survival of the fittest; and many think that the old-fashioned leather springs are worthy of trial for ambulance purposes. The swing of the carriage must not be too great, for fear of sickness analogous to sea-sickness.

Anaesthesia.—Chloroform was the favourite drug. Ether and A.C.E. were in occasional use. I never saw any trouble with any form of anæsthetic. A little struggling, but no sickness at the time, and very little afterwards. Can the sickness in civil life be a nervous condition which does not hold good amongst soldiers in time of war? I am fully satisfied that the soldier accepts without demur any decision which is come to as regards his treatment. He is contented and asks no questions. "All right, I am ready," is his answer. He reminds me of the condition of mind in a patient suffering from shock—not taking much interest in his own case. I speak of the soldiers that I saw at the base, long after their injuries had been received; they seemed still to be suffering from chronic shock, if I might use the term. Their nervous system had received at the time of the accident a shock from which they had not recovered. I can only

* An Address delivered to the Edinburgh Medico-Chirurgical Society.

recall one case of a soldier who refused to be operated upon. How different it would have been in civil life. How often is your advice not taken, possibly because the civil patient has a larger choice of doctors, and goes from one to another, seeking advice until he gets that which agrees with his own or his friends' view of the case. The soldier is alone, has no meddling friends, is trained to obedience, and looks on the doctor as one whom he can trust. The other day Dr. LORANS, Medical Officer of Health for Mauritius, was in Edinburgh on a holiday. When I spoke to him of the ready acceptance of the soldier when operative treatment was suggested, of the ease with which chloroform was taken, and the absence of all anxiety during its administration, he told me that he was much struck by both of these things happening after the dreadful typhoon which visited Mauritius in April 1892. In consequence of it, many operations were necessary on those who had been injured. The Indian population in island, in the times of quiet, raised many objections to operations. On this occasion every one was most amenable, and objections were made. The condition of the patients greatly facilitated the administration of chloroform.

The X-rays.—Great difficulties were often experienced in localising bullets in the spine and pelvis. In the limbs little difficulty arose. In the pelvis a rectal examination will sometimes localise a bullet when the x-rays have been found wanting. I am satisfied that the efficient use of the x-ray apparatus depends very much on the experience of the man who uses it. In some hospitals much want of trust, in others full belief; in the former, inexperienced operators; in the latter, capable fellows, who could localise a bullet without doubt or demur. MACKENZIE DAVIDSON's method gained most acceptance.

Another thing which was very evident in South Africa was the distinct division of patients into two great classes—those who were anxious to go home, those who wish to go back and fight. The first were all septic cases; the second aseptic ones. Dysentery is the disease which most takes the heart out of a man. In the hospitals I saw no one who had not a strong opinion one way or another.

Hospital trains and ships.—I am very anxious that my hearers should fully understand the great value of hospital trains and hospital ships. In Natal the absence of corridor carriages rendered the Princess CHRISTIAN's hospital train of much value. Most fortunately it was ready just in time to cross the Tugela and bring back the sick after the relief of Ladysmith. Colonel FORRESTER, educated in Edinburgh, was then in charge. Shortly afterwards he was seized with typhoid fever, which occasioned his death.

In Cape Colony there were four trains with every comfort; two of them under the care of Edinburgh men, Major SIMPSON and Captain FLEMING, D.S.O. The good that these trains did is incalculable. KIPLING has written of them. I wish his articles, which appeared in the *Cape Times* and in London papers, could be reprinted in a separate form. To my mind they gave the best idea of the true condition of affairs.

As regards the hospital ships, I had no experience of those fitted up at home, but I saw two of the sick ships fitted up in Durban, the *Lismore Castle* and the *Simla*, and I am sure nothing could be better. Every comfort and every convenience, and it is especially interesting to note that, as regards the Durban ships, they were fitted up by naval officers, with no special experience, assisted by Major MACCORMACK. I have heard it said that when these ships went home, they were the envy of the skilled artificers who had fitted up the hospital ships at home. Colonel GALLWEY, the energetic head of the Natal Medical Service, looked on these ships as base hospitals. They contained 1,660 beds, and were a great help in relieving the congestion in the hospitals on the lines of communication. When I mention Colonel GALLWEY's name, I cannot but recall the valuable work done by the Indian Bearer Company inaugurated by him. All spoke well of their bravery and gentleness.

It has to be remembered that the problem in Natal was a much easier one than that in Cape Colony—50,000 men as compared with 150,000; 200 miles of railway as compared with 1,000. These two factors alone made all the difference.

Bullet wounds.—A very interesting question was constantly raised; when a soldier was struck at a near range the wound was worse than when received at a distance. Between 200 and 400 yards a more ragged wound resulted than when the soldier was struck at 1,000 or 1,500 yards. Possibly the bullet is like a top: at first it spins round a centre, and then after a time it settles down into its true course. In Johannesburg I saw several cases of severe brain injuries, often very fatal. In one night three were admitted, and all died. I see in the papers that these injuries are explained by expanding or explosive bullets. Such bullets were undoubtedly found in the bandoliers, but I think the cases must be divided into two groups—first, those in which the bone and brain are severely injured and torn; second, those in which, with a comparatively small bone wound, the brain is much torn. In the first the injury is probably, if no shrapnel is being fired, due to expanding or explosive bullets. In the second the MAUSER bullet may be the cause when fired at a short range.

As regards the poisoning of bullets, I brought home some of the green-coated bullets, and Dr. HUGH MARSHALL, in the chemical laboratory, has kindly examined them, and given me the following interesting report:—

“EXAMINATION OF GREEN-COATED CARTRIDGES (MAUSER)
FROM MAFKING.

“The coating extends from near the tip of the bullet up on to the shoulder of the case. It has not been applied by dipping, but apparently by smearing the molten material backwards and forwards along the cartridge.

“The coating is fatty or waxy in appearance. Over the bullet it is of a uniform green colour and opaque, but over the case the colour is irregular, and the yellow colour of the brass is distinctly visible in small patches through the coating; when examined by means of a lens, the colouring matter is here seen to be in the form of small spots, distributed more or less thickly through a slightly coloured mass.

"When the coating over the bullet is carefully scraped off in very thin layers, it is at first found to be colourless, forming a white greasy powder. Some distance below the surface the green colouring is reached, continuing right down to the surface of the bullet.

"The colourless material melts at about 47° C., and is easily saponifiable by alkalies. It has a distinctly acid reaction.

"The green-coloured portions, when examined chemically, give well-marked copper reactions.

"The bullets in these cartridges are composed of an outer steel envelope, plated inside and out with an alloy consisting principally, if not entirely, of copper and nickel, and filled with a lead core.

"From the facts stated, it is evident that the green colouring matter was not originally present in the coating, but has been derived from the metal. Probably the cartridges were simply coated with suet or tallow for the purpose of lubricating the rifle barrel. In course of time the fatty acids originally present, and which would increase in quantity on keeping, have attacked the underlying metal, forming green-coloured copper salts which have gradually spread through towards the outer surface of the fatty material. Apparently the copper is more easily abstracted from the copper-nickel plating of the bullet than from the brass of the case.

"From the point of view of those against whom the ammunition is employed, there can be little difference between such coated cartridges and those which have not been so treated; from one cause or another, the coating is fairly certain to be completely removed before the bullet reaches its billet.

HUGH MARSHALL.

"University of Edinburgh, October 10, 1900."

Head injuries.—My experience of cerebral herniæ before I went to Africa was very unfortunate; cases rarely recovered. In Africa the majority of the cases that I saw were on a fair way to recovery, and in some the recovery was complete. The antiseptic treatment, in my opinion, could not fully account for it. Possibly it was the larger opening in the bone, because my experience has been that if a hernia appears at a comparatively small opening it goes on growing, and the best chance for the patient is to increase the size of the opening in the skull. The intracranial pressure acts like a wedge, and the larger the opening, the less the pressure. Dr. LOUIS IRVINE, a civil surgeon at Port Napier, Pietermaritzburg, spoke of the good results of formalin in cases of cerebral hernia. He used solutions varying in strength from 5 per cent. to 25 per cent. These solutions acted by drying up the mass, and were at the same time antiseptic.

I saw several cases of severe brain injury followed by recovery. At Wynberg, a patient, when lying on his abdomen, was struck by a bullet on the right temporal region, which passed downwards, forwards, and inwards into his mouth, through the hard palate opposite the right canine tooth. He made a good recovery. In Johannesburg I saw a man in whom a bullet passed

transversely across the brain in the frontal region without bad consequences. At Rondebosch I saw a very interesting case, in which a bullet was removed from the left temporal fossa above the base of the mastoid process. It had been localised by the x-rays. It entered the skull to the left of the middle line, passing through both occipital lobes. A right hemianopsia resulted. The curious thing about the bullet was that, when removed, the base of the bullet was next the bone, the apex of the bullet looking in the direction of the line of fire. I remember seeing at Woodstock a Boer prisoner who had lost by a shrapnel accident a large area of his skull. When I saw him the wound was healed, but the bone was not restored, and as he was a middle-aged man, there was little hope that ossific formation would take place. I suggested, in order to prevent injury to the pulsating brain, that he should wear a shield of Britannia metal. He smiled, and replied that "he had had enough of that metal."

Injuries of blood-vessels.—I saw several cases of arterio-venous aneurism in the South African hospitals. They occurred in the neck and extremities. Much improvement resulted from proximal ligation of the main artery, when the communication was between the carotid artery and internal jugular vein. In the thigh, ligation of the femoral artery did good. In the leg, the aneurism as a rule was laid open, and the artery and vein ligatured above and below the opening. As far as I could judge, the cases were more allied to aneurismal varix than varicose aneurism; but there was not the great dilatation of the vein which is commonly described in such cases. Possibly the cases were too recent, and the venous dilatation occurs at a later date. I had no opportunity of making a dissection of any of those cases of arterio-venous aneurism in the neck, but the improvement that took place after proximal ligation of the main artery, with the absence of any venous dilatation, made me wonder if the condition could be due to bruising of the artery and vein, and subsequent matting with constriction. No one could avoid noting the number of cases of painful neuritis from bruising of the nerve, the cases of neuritis due to adhesion of the nerves to bone after fracture, and the cases of neuritis due to splinters of bullets lodged in the nerve, without thinking that possibly the same thing might have occurred to arteries and veins lying side by side, and giving rise by matting and constriction to symptoms similar to those met with when there is a communication between the artery and the vein.

One case of arterio-venous aneurism in the neck made a deep impression on me. The bullet had passed through his neck from side to side, the track of the bullet passing behind the trachea and behind or through the œsophagus. There was a pulsating tumour low down in the neck immediately above the clavicle, so low down that nothing but distal ligation of the carotid could be attempted. He developed enteric fever, and was invalided home. I heard of him recently in Devonshire, jumping a 6-foot wall. No operation had been performed.

I may mention a strange coincidence in relation to arterio-venous aneurism. Two brother-officers in one

regiment were wounded in the same battle. In one the bullet entered on the right side, 2 inches below the angle of the jaw, the wound of exit, being at a corresponding point on the opposite side of the neck. In the other, the track of the bullet was the same, the course reversed. In both an arterio-venous aneurism developed near the wound of exit. They were taken off the field in the same ambulance, and brought down to Wynberg. Mr. MAKINS operated, ligaturing the common carotid in both cases, with very decided improvement. In false aneurisms the sac was laid open, and the artery tied above and below the bleeding point.

Injuries of thorax.—In lung injuries I was struck with the rarity with which the patient said that he spat blood at the time of the accident. Apparently the MAUSER or LEE-METFORD bullet passes through the lung, searing it and preventing hæmorrhage. On the other hand, it must be noted that in many cases there was hæmothorax probably from the intercostals, and most of the surgeons were agreed that if the blood was slowly absorbed, tapping assisted absorption, and there was also general agreement that a rise in temperature was the first indication that absorption had commenced. Possibly this rise is analogous to the rise we see for a day or two after an extensive operation, due to absorption of the products of metabolism. Empyæma as a result of lung injuries rarely occurred. I only saw four cases. I saw several cases of penetrating thoracic wounds in which, after careful examination of the apertures of entrance and exit, I could not but come to the conclusion that the bullet had traversed the heart. I can only express this as my opinion. I earnestly hope that a careful tabulation of all these cases will throw some light on the effects of the MAUSER on the viscera, lungs, intestines, heart. In all the cavities I saw wounds which, from my former experience, would have certainly proved fatal.

Abdominal injuries.—I had no opportunity of forming an opinion on the question of immediate operation in penetrating wounds of the abdomen. I can only say that I saw several cases in which complete recovery had taken place without operation. It was currently believed that the hungrier a man was, the less his risk in an abdominal wound. I saw one case at Kroonstad in which the wounded bowel had been excised, and I heard of another successful case in Natal. As in the lung, so in the intestine, apparently the MAUSER bullet makes so small a wound that neither bleeding nor extravasation occurred. I can explain the recoveries after penetrating wounds in the abdomen in no other way. I saw in Wynberg two very interesting cases of penetrating abdominal wounds, in which a large hæmatoma formed in the iliac fossa. In one, the abdomen was opened and the clot expressed; in the other, absorption took place.

In one case the bullet traversed both thoracic and abdominal cavities without evil consequences. It entered above the left clavicle, and was removed from SCARPA'S triangle on the right side.

After I left Wynberg, I was brought in contact with a new state of affairs. To a great extent, in Kimberley, Bloemfontein, and Kroonstad, almost entirely in Johan-

nesburg and Pretoria, the sick and wounded were in hotels, churches, and halls, and if there was free ventilation and the rooms were large, they made excellent hospitals, but tents and hospital huts are better than houses. In speaking to the students at the beginning of the session, I referred to what seemed to me a matter of very considerable importance. The purification of these buildings must be very thorough. Many South African friends expressed to me their fear of the coming year, and they anticipate a great outbreak of enteric in the near future. This will be a very serious affair, looking to the flood of emigrants, new to the country, who will rush north whenever they get the chance. I think there should be no delay in sending out the best incinerators, and compelling the authorities to burn the dejecta. Burying is common in Cape Colony, in the Orange River Colony, and Transvaal. In the three large hospitals in Natal, Estcourt, Mooi River, and Howick, the dejecta were burned. At Johannesburg I made a careful examination of the methods used in burying. I found all the Kaffirs who removed and buried the dejecta in good health, and in a very short time the earth in the trenches in which the burial had taken place resumes its normal appearance. Still I cannot help thinking that burning is infinitely preferable, and I trust that it will soon become general throughout South Africa. There should certainly be incinerators at all the railway stations to burn the dejecta from the hospital trains.

We will, I trust, hear from Dr. BOYD his experiences on typhoid and dysentery, but I may be allowed to say that phlebitis of the common femoral vein was a frequent complication in enteric, delaying recovery. I did not hear of any fatal results from it. Patients with typhoid died from exhaustion or hæmorrhage, rarely from perforation.

There is much difference of opinion as to the merits of typhoid inoculation. It will be some time before the results can be tabulated, because the medical sheets of the soldiers did not accompany them, and no definite data could be attained, more especially from those who were admitted into the hospital in a moribund condition.

There is a fever in the nomenclature of disease used in the army called "Simple Continued Fever." Many hold that it is aborted typhoid, and at Estcourt Hospital I was informed that five out of six cases reacted to the WIDAL test. Had these patients been inoculated for typhoid, and was the reaction due to the inoculation?

The WIDAL reaction test was not in use as a rule in the military hospitals. It is from the civil hospitals that we will hear regarding its value as a diagnostic.

As regards dysentery, I was struck with the great depression of spirits of the patient. The treatment by the free use of sulphate of magnesia, followed by ipecacuanha, was the favourite remedy. Dr. WATKINS PITCHEFORD, a civil surgeon at Estcourt, strongly recommended the use of ipecacuanha along with bismuth and chlorodyne in dysentery. He has described the treatment in the *British Medical Journal*, 10th November 1900. He used it on the suggestion of Dr. CROSSLAND, a civil surgeon on duty at Estcourt.

Abscess of the liver sometimes followed dysentery. Those who had most experience of this disease in India advocated posterior aspiration; then, if the pus was found, removal of a rib and free drainage. All dwelt on the importance of a very large drainage tube.

The Work of the Civil Surgeon in South Africa.—Two days ago I received a letter from the Station Hospital, Ladysmith, dated 1st November 1900, portions of which letter, with your permission, I will read, just to indicate the sort of work which falls to the civil surgeon in South Africa:—"I thought you would like to know more of the cases you were consulted about in the surgical ward here early in August. The Ayrshire footballer, with dislocation of the internal semi-lunar cartilage, I operated on; finding only a small portion of it turned over, I passed a chromic catgut through it and the capsule of the joint. The wound healed by first intention. The yeoman with acromegaly was discharged to Howick and invalided home. The orderly with varicose vein was operated on by tying the saphenous vein. He made an excellent recovery, and is regularly on duty. The young scout with locking of the elbow-joint was sent to Mooi River Hospital to have an x-ray photograph taken. The night he got there a great storm occurred. All the tents were blown down, and all patients transferred to various hospitals down the line. The most interesting case I think was the Grenadier Guard, in whom you diagnosed division from bullet wound of the median nerve. The day before I intended to operate I thoroughly overhauled the arm, trying to locate the ends of the divided nerve. In this I failed; but next morning he woke with returned sensation in the hand. I take it the nerve was not divided at all, but had become tied down, and strangled in fibrous tissue in the healing track of the bullet, and the manipulation had freed it. Under massage he made rapid progress, and was discharged to Howick with a very useful and still improving hand. I had my best week in South Africa last month. An operation for abscess of the liver from gall-stone; iridectomy for glaucoma; radical cure of hernia; laparotomy for an abscess of the spine after enteric, all doing well."

This letter is from Dr. J. B. RUDDUCK, civil surgeon. Possibly such a letter will best illustrate what seems to be an outstanding fact, namely, that the civil surgeons have been of much service in South Africa.

This paper is chiefly one of impressions. I wish I had been able to keep more notes, but the fact is that from the day I left Capetown until I reached Capetown again, with the exception of a few days at the Edinburgh hospital, I was constantly on the move and not placed in favourable circumstances for extensive note-taking. May I, in conclusion, express the earnest hope that the medical history of this war will be fully described in the form, and with the thoroughness, that the great Civil War in America has been dealt with by the Government of the United States. From such a history many most useful lessons will be learnt, which will be of the greatest use to all members of our profession, and especially to the Royal Army Medical Corps, and to those civil surgeons who may in the future be called on to reserve Her Majesty in times of war.

THE TREATMENT OF VARIOUS LONG-STANDING SEXUAL AND URINARY SYMPTOMS IN THE MALE.

BY FOLLEN CABOT, M.D.,

New York.

THE importance of determining the existing cause of various obscure sexual and urinary symptoms cannot be overestimated. Without this knowledge we frequently blunder and treat a patient for a condition which is entirely secondary in its nature. For example, a patient presents himself with a persistent urethral discharge. We find, upon examination, a congested, inflamed state of the anterior urethra; we thereupon proceed to treat this condition with various injections and applications to the front urethra. In some cases the temporary result is apparently good, the discharge and local symptoms subside and the patient is relieved. The local treatment is for the time discontinued, when the discharge and previous symptoms promptly return and leave us just where we were in the beginning. In other instances the condition is greatly aggravated by the above form of treatment, with the consequent loss of confidence on the part of the patient. In yet another class of cases complications result to remote parts of the genito-urinary tract. This is particularly so when strong, deep injections are used, or when sounds have been unadvisedly employed.

The complications in these cases may be caused by extension to healthy tissue from the part which is the existing cause of the trouble, or they may be due to a lighting up of a disease in an organ already affected. If the former is the case, we have done further damage to our patient and have made an already bad matter worse. If, on the other hand, the latter condition results, that is, a lighting up of the existing cause of the trouble, we certainly have given the patient no help.

In a small percentage of cases, direct or indirect extension of the disease to connecting parts follows with no apparent cause, but in the majority of such instances the aggravation and extension of the process is caused by the blind treatment of the physician.

It is evident that if we have a disease of the seminal vesicles, prostate, or COOPER'S glands, or of the deep urethra, where the anterior urethra is secondarily involved, treatment of the front urethra alone will not produce permanent relief. Occasionally, when the disease in these parts is mild, a cure will follow in spite of improper treatment; but such luck is not common.

If, by following general principles, we give deep injections of silver or sulphate of copper, or use sounds, etc., and only the deep urethra happens to be involved, relief occasionally follows. When, however, as is commonly the case, parts outside the urethra are diseased, we are likely to do damage, as already stated, by violently stimulating and injuring these delicate organs, already very sensitive, owing to their previously inflamed state.

Of course it is granted that the majority of the diseased processes in the male genito-urinary organs are caused by the gonococcus lodging in the urethra by way of the meatus, and later, in many instances, from one

A MIRROR OF PRACTICE.

A CASE OF MULTIPLE EXOSTOSES.

By ASSISTANT SURGEON Y. G. APTE, B.A., L.M.S.,
Memorial Hospital, Lashkar, Gwalior.

CHAND MAHOMED, a young Mahomedan of about 25 years, was admitted into the Memorial Hospital for a foul growth on his left thigh on 28th November 1900.

History.—The present complaint dates two years back. The patient had a congenital bony growth on the left thigh as elsewhere (described in detail below). While going about his work (he is an attendant in a club) he stumbled and was hurt on the growth. The part inflamed: swelling not disappearing with his own treatment, he was treated by a jarrha (a quack), who applied some (caustic?) applications, producing discharging openings all round the swelling. The trouble got much worse since the last four months, wherefore he sought admission into hospital.

Present condition.—On inspection, there is a large swelling about middle of left thigh, rising out quite at right angles to the length of the bone, almost in front. There is a very offensive smell. There are a number of discharging openings all round the tumour. In the centre is a black patch, which, on palpation, appears to be almost loose dead bone. The swelling has an inflamed angry look. There is some pain, increased on pressure; the tumour rises about 3 inches from surface of thigh, has a wider base than top, being 3 and 2 inches in diameter respectively. To the feel the swelling is hard and bony. The outgrowth appears to be continuous with the femur, although the very top (black patch) feels loose. On deep pressure the bone crackles, showing that there is some more dead bone within as the one piece visible outside.

Previous diseases.—The patient has a deformed osseous system (described below), and there are small bony outgrowths on various parts of the body. Some eight years back, while playing, he hurt himself on a small growth on the upper and outer part of the right arm. There was swelling, &c., which went to form an abscess: when it was opened, a small piece of bone was discharged with pus. It healed up well, leaving a cicatrix. Even now there is a small free bony nodule at the part.

There is nothing else significant in his previous personal history after birth, but there is an antenatal fact (?) to note that he was in his mother's womb for 13 months!

Osseous system.—There are bony growths on both the extremities, more on the lower, not symmetrical, of all sizes, from a small marble up to an orange, or, as on the left thigh, a large mango. They arise on all sides of bones, at all angles. The larger ones have usually a broad base, but in a few the attachments are much narrower than the bodies. They send out pointed and blunt processes in various directions, which are to be felt mostly subcutaneously, but also through muscles. They are most on the right leg, numbering there seven. They are on the shaft of the bones, except on the left wrist, where a few are situated on the lower extremities of the bones of the forearm.

The general stature of the man is a stunted one. But the upper limbs are particularly so, where the arm and forearm are much less in length than even proportionately to the lower limbs. Of the two, the left is shorter, the left forearm measuring only $7\frac{1}{2}$ inches long (the right being only one inch more). The left forearm is deformed in another direction, in that a forward and inward curvature of both bones in the lower half is very marked.

Besides the limbs, the rest of the osseous system is perfectly free on the surface, except for a small nodule on the left seventh rib near its anterior end. Even in the limbs, the hands and feet, the clavicles and scapulae, as well as the patellae, are free. There are no growths also in the inguinal, popliteal or axillary regions. There is no interference with the nervous or circulatory systems.

There is nothing else in his system to take note of. After these details, it is interesting to refer to his

Family History.—He has two brothers and a sister, who are perfectly normal. So are his parents and his mother's parents (nothing known on father's side). His uncle is free, but two of his (uncle's) five children—a boy and a girl—have similar growths, though not so numerous nor well-marked. To his knowledge these growths are also situated on the limbs, except in the male cousin, who has also one in the perineum, which gives him some trouble.

Diagnosis.—The bony nature of tumour is evident to feel. Deep pressure discovers that the bone, which was probably hard like the other tumours, has gone to pieces—the result of a traumatic inflammation. Their occurrence on the long bones, as well as their multiplicity, would suggest that they were cancellous exostoses. Their family tendency is brought out in the history. As described above, many of them are pedunculated, and irregularly lobulated on the surface, as cancellous tumours are.

Operative interference was necessary on account of the condition of parts in which the patient was admitted. The stink—the characteristic stink of bone pus—having been mostly removed by previous saturation with strong carbolic lotion, the patient was placed on the operation table and chloroformed. The intervening bridges of tissue between the several openings on the surface of the tumour were broken down with the fingers. The looseness of the bones became quite evident, as piece after piece was removed with the fingers and sequestrum forceps, and the chisel had to be used to remove the attached portion, which was more compact and hard than the upper, which was dead. While thus chiselling away, the tumour was discovered to have a somewhat narrow attachment a few inches above the lower end of the femur, and an upwards process going into the muscles beyond the breadth of the base of the tumour. On removing the pedicle the medullary canal was exposed, and drops of fat were seen floating in the blood accumulated in the wound. After all sharp points were taken away and smoothed, the wound was sponged dry, dusted with iodoform, and firmly bandaged. As the whole tumour was removed, and no skin covering it being worth keeping in its condition, there was a large deep wound exposed, but the filling up was rapid

and uneventful, and the patient walked out of the hospital on 18th January 1901.

Remarks.—The case is an instance of a deformity which is certainly out of the common. But for the accident and the consequent trouble in the growth, which did not in itself come in the way of his work, he would not have come to hospital. The exostotic growths have told upon the nutrition of the bones, which are shorter than normal and curved, especially so the left forearm.

But their influence in arresting the development of bones from which they spring is not noticeable in the left thigh (bearing the large tumour) which is quite as long as the right one. They do not also, in the present case, at all arise "at the line of junction of an epiphysis with the shaft," as they are said "almost invariably" to do (EBRICHSEN). It may also be noted that they are congenital and have a family tendency which is somewhat curious, inasmuch as they occur in cousins, but not in brothers or parents.

AN OPERATION DEvised FOR THE TREATMENT OF MARKED PROLAPSE OF THE RECTUM IN WOMEN.*

By J. WESLEY BOYER, M. D.,
Washington, D. C.

THE treatment of exaggerated rectal prolapse has taxed the most skilful surgeons of the world. Various methods in the way of plastic operations and the application of the cautery and many ingenious devices have been resorted to, but generally these have been inadequate and unsatisfactory, even when repeated a number of times on the same patient. Generally, resection of the rectum from below has been the best plastic procedure, but this has failed even when repeated. This procedure is much like shortening a drainage-tube by frequent amputations. In 1889 JAENNEL (*Gazette hebdomadaire de médecine et de chirurgie*, xxvii, 1890, p. 246) proceeded by a different method, one original with himself, I believe, and one which bids fair to meet with favor in the surgical world.

Instead of pulling down and cutting off the end of a loose rectum, as had been done previously, he elevated and fixed the colon to an artificial anus wound in the iliac region. BRYANT, of New York (*Annals of Surgery*, xxvi, 1897, p. 165), found records of twenty-nine cases, including his own, of operation by this method. In some of them the technique was slightly modified. These cases were all primarily successful. Omitting three cases in which dates are not given, we have twenty-six reported from two weeks to two years after the operation, in which there was but one return (reported more than a year after the operation), with one partial return.

It has been urgently recommended to make an artificial anus at the same sitting, that suspension of the physiological function of the rectum might be attained. This was due to the belief that the usual attending rectal disease was greatly improved by such rest. This idea is no doubt correct. Indeed, BRYANT noticed a proportionate return of the prolapse as the unnatural anus became

smaller. This relapse should not occur, though this tendency may be considerable, if the bowel attachment is made to fascia instead of to peritoneum, as has been the rule in these operations. Again, if the area of the bowel adhesion is increased, such return would be less likely to occur. A considerable number of these attachments have been made to the epiploica and a few to the mesentery, certainly not structures exerting much resistance. The difficulty of closing these artificial an is great, in even the small ones, requiring repeated operations. And in those sufficiently large to completely perform the function of the rectum, it is still more difficult. This feature would seem, therefore, to be one to be avoided if possible. It produces a very troublesome condition, loathsome to the patient, and presages one or more operations. Then, too, the danger of ventral hernia at the site of the colotomy is great, often necessitating a severe subsequent operation.

In my case marked prolapse of the uterus was associated with hemorrhoids and great procidentia of the rectum in a woman to whom the uterine appendages were of little value. No simple operation would have relieved the rectal condition while the uterus was in such a state of prolapse, and *vice versa*. These conditions thus associated caused me to resort to the unique radical procedure to be later described. While not applicable to all cases, as firm attachment of the uterus to the abdominal wall is necessary, a condition not consistent with safe child-bearing, it has a limited field in rectal prolapse in women. It is not improbable that marked rectal prolapse, associated as it is with proctitis and tenesmus, is usually productive of some degree of uterine prolapse. This being true, this operation, so far as I am aware, the first of the kind, will have a sphere, though necessarily limited, in the treatment of these conditions. Removal of the appendages is not necessarily a feature of this operation, yet sterility should be certain, or nearly so, as an indication or justification. Though the patient is perfectly well, with no evidence of relapse at the end of eight months, it is yet too early to record a perfect result. The prospect, however, is the brightest. The history of the case is as follows:—

Sister V—, a Sister of Charity in a neighbouring city, was thirty-five years of age. She had been treated unsuccessfully a number of years for prolapse of the rectum and uterus, and hemorrhoids. When she came under my care, she was suffering from large internal and external hemorrhoids and a protruding roll of fully three inches of the rectum, that was thickened and much discolored. The uterus was of about normal size, with its cervix just behind the pubes and the fundus very low posteriorly. A few days later, on March 6, 1900, the operation was done. The hemorrhoids were first removed, then the abdomen was opened by the usual subumbilical median-line incision. The left ovary was of about three times its natural size, and largely consisted of numerous cysts. The appendages were removed and the uterus was firmly fixed to the abdominal wall by four strong interrupted catgut sutures, which passed through a considerable portion of the uterine fundus at the top and the principal fascia of the abdominal wall on either side of the incision. The rectum was now drawn upward until it was fairly tense, and was so held by an assistant until it was sutured to the *cul-de-sac* and posterior wall of the uterus up to the abdominal wall. This was done by a running catgut suture. It completely divided the retro-uterine pelvic cavity into two equilateral ones.

* Read at the Thirteenth Annual Meeting of the Southern Surgical and Gynecological Association, held in Atlanta, Ga., and sent to the *Record* for publication.

VESICAL CALCULUS: LITHOLAPAXY: SUPRAPUBIC OPERATION.

By T. M. SHAH L.M.,

Medical Officer, Junagadh State Hospital.

JERAM RAMA, male, aged 40 years, admitted on 15th October 1900 with symptoms of vesical stone, said to be of fifteen years standing. Bladder was sounded and stone detected; urine was acid; specific gravity 1010 with mucous and albumen about half in quantity.

18th.—Patient was placed under chloroform. Morphia ($\frac{1}{2}$ grain) injected hypodermically. Lithotrite Nos. 12 and 16 passed, but stone being large it did not come within grasp; meatus then was incised and lithotrite No. 20 passed; calculus was partly chipped. It was extremely hard, and both personal as well as assistants' efforts in screwing up the instrument and crushing the stone failed. Some debris was aspirated twice.

After half an hour's futile efforts, suprapubic operation was performed. Bladder was filled with water. Sound was passed in; usual incision in the lower part of abdomen was made; all the tissues were divided. There was free oozing of blood from the veins. The bladder wall was transfixed with silk thread and then it was opened by knife guided by the tilting up of the point of sound. Fluid escaped; forceps introduced. As the stone was large, the bladder incision was enlarged, and then the stone was twisted out.

Stone weighed 1150 gra.; debris weighed 245 gra.—total weight 1395 gra.

Bladder was then washed out.

Two catgut sutures were passed in order to contract the bladder wound. Two wire sutures were passed and the abdominal muscles brought together. Four silk sutures closed the abdominal incision, and intermediate horse-hair sutures were applied. The lowest part of the wound was not closed in order to allow passage to urine that may dribble.

Iodoform was sprinkled and lint and bandage completed the dressing. Rubber catheter was passed into bladder per urethra and retained, so as to let urine flow out.

19th.—Catheter was out during night and dressing was soaked with urine. Catheter was reintroduced.

30th.—Urine passes mostly by the wound, some portion per urethra. Patient gets some rise of temperature in the evening; it is normal in the morning.

10th November.—Abdominal wound has assumed sloughy appearance; sutures have given way; the abdominal wound is gaping; all urine passes per abdominal opening. The parts emit offensive odour. The cellular tissue in front of the bladder has also sloughed.

20th November.—All slough separated; the wound is nicely granulating and contracting. Half the urine passes per urethra.

5th December.—Abdominal wound closed and all urine passes per urethra. Patient is gaining flesh and is now quite comfortable.

7th.—Discharged well.

Remarks.—Litholapaxy is now the ruling operation for vesical calculus. Other operations for stone are resorted to under exceptional circumstances, such as the case under report, the stone being too hard to be crushed by lithotrite. Besides this, when stone is too large, when it is encysted, and when urethra does not admit in adequate lithotrite, litholapaxy is out of question.

Litholapaxy is otherwise applicable to all ordinary stone in either sex and at all ages.

When a stone is large and hard, it becomes a troublesome operation to the surgeon, though very safe for the patient.

In the case of hard stones I utilize, besides personal efforts, the help of assistants or the leverage of a

forceps in screwing up the blades. In many cases screw up the main blade tight and wait for a while till the cracking of stone is heard.

Besides thorough crushing, complete aspiration of debris is very desirable.

In children it is a source of more or less bother when the stone is comparatively big and the quantity of debris is large. The canula admissible is necessarily small, Nos. 6 to 8, and its calibre is so often blocked up by the debris. Any remnant of debris acts a good deal of irritation in the bladder of the patient and causes anxiety to the surgeon.

In adults with ordinary stones, litholapaxy is a charming and excellent operation.

LAPAROTOMY FOR INTESTINAL OBSTRUCTION REPEATED WITHIN SEVEN MONTHS.

By LIEUT.-COLONEL J. LEWTAS, M.D., LOND., I. M. S.

ON April 21st, 1899, I received a telegram from Dr. HUMPHRY, of Kurseong, near Darjeeling, asking me to go there prepared to operate on a case of intestinal obstruction. On arrival I found the patient, a young lady of 28, with all the symptoms of an advanced stage of obstruction, such as collapse, intense pain in the abdomen which was distended, and constant retching. Assisted by Dr. HUMPHRY and Dr. SEAL, I opened the abdomen by the usual median incision, and found about 6 inches of the small intestine contracted to about the diameter of a lead pencil, the part above being greatly distended. No constricting band could be found. After pressing the contents of the upper part of the bowel through the constricted portion, the incision was closed in three layers, and she made a good recovery. But about three months later she began to complain of abdominal pain, which felt, she said, as though "something was drawing the cicatrix backwards to the spine." I heard no more of her until November 5th, when Dr. HUMPHRY telegraphed again under the same conditions as before, but as I could not go to Kurseong, he brought the patient to me, and on November 6th I again opened the abdomen through the former cicatrix. I hoped the operation might have thrown some light on those abdominal pains of obscure origin which are not uncommon in the after-years of patients who have undergone abdominal section; but it did not do so; no bands or adhesions were found, and the condition of things was a precise reproduction of that found at the previous operation—namely, extreme contraction or collapse of a few inches of the small intestine. Again she made a quick recovery, and there has been no return of abdominal pain since the second operation. Of the anatomical cause of the obstruction nothing definite can be stated further than to say it was not due to either a band or an opening in the mesentery, nor did the constricted part of the intestine appear to lie in a retroperitoneal pouch: hence one is almost driven to conclude that obstruction may be caused by spasmodic contraction of the gut itself. The history of the first attack is suggestive, as it came on after an effort to carry upstairs a housekeeper who had snuffed not wisely, but too well.

Indian Medical Record.

27th February 1901.

ORAL SEPSIS AS A CAUSE OF "SEPTIC GASTRITIS," "TOXIC NEURITIS," AND OTHER SEPTIC CONDITIONS.

IN a communication to a contemporary, Dr. WILLIAM HUNTER, M.D., F.R.C.P., deals most convincingly with the somewhat novel and neglected, though none the less important, question of Oral Sepsis as a Cause of "Septic Gastritis," "Toxic Neuritis" and other Septic Conditions. His remarks and opinions are lucidly illustrated with appropriate cases, and we consider the paper well worthy the perusal and consideration of the entire medical community. We essay a review. After stating how common a cause of disease oral sepsis is, how grave its effects, how constantly overlooked and what remarkably beneficial results could be got from its removal, the author proceeds to discuss the local effects of oral sepsis, showing that, in the mouth, it produces dental necroses in all cases, gingivitis and stomatitis of every degree of intensity, periostitis, pyorrhoea, alveolaris and deposition of tartar; in the jaws, it produces alveolar abscesses, osteitis, osteomyelitis, necroses and maxillary abscess, and in parts adjacent to the mouth such affections as tonsillitis, pharyngitis, otitis, glandular enlargements, cellulitis, post pharyngeal abscess, ethmoidal suppuration, and even meningitis by direct extension. That these effects were not even more common was due to the remarkably resistant powers of the mucosa of the mouth, for sepsis connected with diseased teeth was of a particularly virulent character, much more so than the pus derived from soft tissues. It was well to remember that pyogenic organisms were always absent in teeth successfully dealt with antiseptically. A mere question of the presence of an organism was not, however, the only factor. *Dose and resistance* were important, the former especially when a whole series of teeth were affected—dark, necrotic, lying in inflamed, septic and possibly suppurating sockets. The effects of such a condition were not limited to the local sepsis. They were more widespread and were of three kinds:—

(A) *Gastric and Intestinal Effects.*—Gastric catarrh with nausea, distaste for food, sickness, gastric pain, &c., associated with poor nutrition, depression, weakness and a dirty sallow complexion. If there was a continual source of infective generation going on around the teeth, it was not difficult to understand infection occurring lower down in the gastric mucosa itself. It was this condition which the author proposed to designate "Septic Gastritis," the title septic accurately describing the cause and the nature of the resulting catarrh. It was pointed out that the relation between dental disease and indigestion was in most minds considered a "mechanical" one, with others bad teeth denoted bad nutrition and bad health—they were the result of ill-health rather than the cause of it—but there

was a third relationship far more important than these, namely, that dental disease was a cause of indigestion in consequence of being a continual source of septic poisoning and septic gastric infection. The author sums up this relationship thus:—(1) There is a limit to the capacity, even of the stomach, to resist indefinitely for periods of years the continuous presence of pyogenic and other organisms derived from cario-necrotic conditions of the teeth. (2) Its powers of destroying such organisms, although great, are never complete even in health, and are due solely to the presence of free hydrochloric acid. (3) These powers become progressively weakened when, through any cause, an increased and continuous supply of pus organisms is associated with a diminished and continuously lessening acidity of the gastric juice. (4) These two conditions are precisely those produced by cario-necrosis of the teeth. (5) In time the catarrh of the stomach, so common a sequel of imperfect dentition—possibly of a simple irritant nature to begin with, the result of fermentation—becomes septic in its character, that is, really a septic gastric catarrh. (6) Eventually it may even lead to the deeper seated changes which always result from chronic catarrh, viz., atrophy of secreting structures, with increase of fibrous tissue (chronic gastritis with atrophy of the glands).

Cases of gastric catarrh in association with dental and oral sepsis were met with daily. The ashy grey look and general languor in such cases were manifestations of long-continued septic absorption: the local symptoms of clamminess in the mouth, distaste for food and coated tongue were really the result of the oral sepsis, while the nausea, indigestion and gastric discomfort were the result of "septic" gastric catarrh produced by direct infection of the stomach with pus organisms. Here the writer illustrates his remarks with six cases showing the frequency of these conditions and the extraordinary way in which the most remarkable conditions of oral sepsis were overlooked while the patient was being all the time sedulously treated for the local effects. In one case Dr. HUNTER was able to demonstrate conclusively not only the septic nature of the gastric catarrh—the catarrhal exudation vomited being loaded with pus organisms,—but also its persistence, since the condition continued three weeks after removal of all source of oral sepsis. How much more, then, was this condition likely to exist when the oral sepsis is extreme, as it often was, and the patient had to swallow pus organisms continuously for many years!

(B) *Remote Infections.*—Including the whole series of infections caused by pyogenic organisms, such as acute osteo-myelitis, ulcerative endocarditis, empyema, suppurative meningitis, suppurative nephritis, etc., with other obscure septic conditions characterized by fever, purpura, bleeding from gums, etc. The author did not consider this aspect of the subject.

(C) *Toxic Effects.*—Including symptoms due to septic absorption, apart from any actual general infection. They were extremely common, and, like all the other effects of oral sepsis, no less commonly overlooked.

There were the usual signs, but often *without any local symptoms*, for these effects were by no means necessarily proportionate to the violence of the local symptoms. The following effects were among those the writer had met with: (a) Fever—of obscure character—really septic; (b) septic rashes; (c) purpuric hæmorrhages and bleeding from the gums like signs preceding ulcerative endocarditis; (d) profound septicæmia; and (e) nervous effects, alluded to now for the first time by Dr. HUNTER, under the title Toxic Neuritis. The absence of local effects was often due to the very intensity of the poisoning. The tissues were able to offer no resistance at all. If the local effects had been as marked at the outset as they were at the termination, the general toxic effects would not have been so marked. They included the ordinary effects of blood-poisoning, namely, lymphangitis and high fever. One case cited in this connection is especially interesting, confirming, as it does, the writer's conclusions regarding the infective (partly septic) nature of pernicious anæmia, and the importance of oral sepsis in relation to it. The author then describes twelve cases indicating that, apart from any connection with pernicious anæmia, toxic neuritis with numbness, tingling in hands and feet, loss of knee-jerk, marked wasting of certain muscles and local palsies, was met with in connection with extreme conditions of oral sepsis. In all the cases the nervous effects were very marked: in all the most intense condition of oral sepsis prevailed, lasting for many years, and in all cases immediate improvement resulted from removal of this condition. In dealing with the phase of this subject as to oversight in regard to the importance of oral sepsis, the writer indicated that not only in general treatises of medicine, but in special treatises dealing with the individual diseases, such subjects as *stomatitis*, *tonsillitis*, and *pharyngitis* were discussed without the slightest reference to sepsis within the mouth as a possible source of infection, and, as regards the teeth in particular, without other reference than to the possible effects of "persistent irritation by a broken or sharp tooth." Gingivitis and stomatitis were the commonest effects of sepsis in connection with diseased teeth: the cases in which it was most intense and widespread were those in which tooth-plates were worn covering diseased roots, particularly if not regularly removed. These affections were regarded in general as the effects of general conditions rather than as effects of local causes. For catarrhal and follicular stomatitis, every possible cause had been ascribed with the single exception of local septic trouble in the mouth, and the same could be said of ulcerative stomatitis. By only one of the most recent writers (Dr. WILLS: "Allbutt's System of Medicine") was the condition of the teeth recognised as a very important element in the production of the ulcerative form of stomatitis, inasmuch as it never appeared before the teeth. Examination of the teeth was always inculcated as important: since notching of the teeth might denote syphilis, a blue line on the gums lead poisoning, and looseness of the gums, scorbutic conditions; but nowhere was there any reference to the extraordinarily septic conditions seen in the mouth in everyday practice as the result of septic inflammation arising from necrotic teeth. The same remarks held

good in tonsillitis and pharyngitis. These were got rid of by removal of the causes of the sepsis—necrotic teeth and septic stomatitis. As regards pharyngitis, dyspepsia and constipation had been described recently (Allbutt's System of Medicine) as the most potent causes, and the class of case thus arising had been regarded as toxic in origin, due to failure on the part of the liver to destroy toxins resulting from imperfect digestion, or from decomposition in the intestine, these toxins like belladonna exerting a specific action on the pharyngeal mucous membrane. In the author's opinion the relation between the pharyngitis and these various disturbances was of another kind. They were all the results of septic gastritis. The pharyngitis was not caused by them: but both alike were part results of the primary septic condition within the mouth. In the case of septic gastritis the oral sepsis was most constantly overlooked while the patient was sedulously treated for its effects. The patients in all these affections would have suffered much, heard much, and been possibly medically and dentally treated: but as regards the teeth, the only one fact learnt was that, if the teeth were not in order, indigestion must be expected, as proper mastication was interfered with. The profound sepsis induced as aforesaid was never dreamt of.

Treatment.—It was to be remembered that what was being dealt with was pus-forming organisms which were constantly present in the mouth in connection with necrotic teeth. What was wanted was a fuller recognition on the part of all—physicians, surgeons, dental surgeons and patients—of the septic nature of this condition of caries of the teeth. The gastric troubles were not the result of any dyspeptic trouble or of ill-health or of insufficient mastication: they were the result of sepsis caused by carious teeth. The chief problem was to find out where the pus organisms had gained entrance. In regard to oral sepsis, the author thought that there was a wide field open for preventive medicine by the practice of oral antiseptics. In this expression oral antiseptics, Dr. HUNTER did not mean any general application of mild astringents or antiseptic washes. He meant: (1) The direct treatment of each lesion in connection with a diseased tooth by strong antiseptic solutions: carbolic acid 1 in 20 or 1 in 40 periodically applied as long as the patient delayed having the tooth removed, or as long as there was the slightest redness around the root. A teaspoonful of 1 in 20 carbolic acid in half a tumbler of water formed an agreeable mouth-wash. (2) Removal of all diseased stumps and roots, in particular those lying underneath any tooth plate. (3) The dentist must not only supply his patient with tooth-plates: the patient will have to be educated and shown that these plates were the cause of septic trouble unless they were daily sterilized. (4) There should be an entire avoidance of any dental apparatus (liable to become septic) which could not be removed, and therefore which could not be kept aseptic.

SUPRAPUBIC CYSTOTOMY FOR REMOVAL OF GROWTHS IN THE BLADDER.

THE *Practitioner* publishes in detail a clinical lecture on Suprapubic Cystotomy, delivered at St. Bartholomew's Hospital by Mr. ALFRED WILLETT, F.R.C.S., Surgeon to that Institution. We call the essentials. The object of the lecture is apparently to advocate the extension of this method of operating in reaching and exploring the cavity of the bladder, and for dealing with cases of suspected new growths located in it, especially as in the latter cases, though the legitimacy of the operation was unquestioned, it was still somewhat on trial, and its expediency was called in question by many. One extremely prominent advantage of the operation in doubtful cases was the arrest or cessation of hæmorrhage when present. The lecturer then detailed three cases of much interest in which suprapubic cystotomy had been performed: the first, in a woman for the removal of a papillomatous growth which, after much trouble, had been diagnosed by rapid dilatation of the urethra and examination with the finger under an anæsthetic; the second, for the removal of a stone which had failed to be crushed by the lithotrite—on *post-mortem* the real disease was found to be a new growth, a noteworthy fact, considering the opportunities for discovering it; and thirdly, in a patient in whom nothing beyond enlarged prostate could be diagnosed, but in whom other symptoms indicated something wrong with the bladder—two small filiform papillary growths above on the left side were found and removed by the finger, and the patient convalesced without a symptom. There was an essential difference in reference to diagnosis between the first, and the second and third cases; that is, between bladder diseases occurring in women and those occurring in men. In the former, a suspicion of growth in the bladder could be set at rest by dilatation of the urethra and digital exploration of the interior; but in the case of men the difficulties were very great. If one, however, could exclude stricture, prostatic disease, stone cystitis (simple or tubercular), gross kidney disease, and if no tumour could be felt, there remained only new growths, and the bladder was the most common situation for these. The lecturer regarded hæmorrhage as by far the most important, for if it was of the bladder type and intermittent, coming on unceasingly, even when the patient was lying quietly in bed, and occasionally was profuse, there was always a strong indication of a new growth in the bladder. In regard to the cystoscope as an aid to diagnosis, Mr. WILLETT could not say that he had acquired confidence in it after much familiarity. Sometimes the illumination was defective; sometimes the media could not be kept clear; but the main obstacle seemed to be defect in, or uncertainty of, being able to bring into focus the whole interior of the bladder. He always used it in doubtful cases, but was not by any means convinced there was no growth if none was discovered. Sounding independently of the cystoscope should always be done, for one might detect a large growth by it almost as certainly as a stone. The sound might refuse to travel along one surface or one side, or it might be suddenly caught, or it might jump over an elevation. On the other hand, sounding might excite sharp hæmorrhage. Digital examination *per rectum* should always be made: the trigone area was one where

growths were very frequently found: a tumour or more probably an indurated or thickened condition might be felt whilst the finger was in the rectum, the other hand palpating the hypogastrium. Even with the microscope there was much disappointment, for rarely was any living tissue voided, but only *débris* of a quite structureless form. It was unlikely that the Röntgen rays would be able to aid in diagnosis, owing to the extensive bony environment. Diagnosis could rarely be quite certain. The lecturer then considered under what circumstances a surgeon would be justified in recommending a male patient to submit to operation. These were: (1) In all cases where hæmorrhage was alarmingly great, threatening life if allowed to continue. (2) In cases where ordinary ailments which lead to severe bladder disease can be excluded, where the routine treatment of bladder symptoms has failed, and where the patient's life is rendered miserable and the disease advancing towards a fatal termination. (3) In cases where the bladder hæmorrhage was unaccountable on any other hypothesis than a growth. In all these cases, however, the growth was merely probable. Opinion might have to be given where, either by the cystoscope or digital examination or sounding, there was a greater certainty as to the existence of growth. In all such cases should the bladder be opened? Mr. WILLETT was inclined to say, "generally Yes;" and unless there were contraindicating conditions, such as that the patient was in too bad a general condition to recover from any serious operation, or when the local condition was obviously too extensive for any hope of successful removal, or when it was probable that secondary deposits existed in other organs. In other words, the operation should be performed when, after the fullest investigation, the surgeon is in doubt, and the patient, thus given the benefit of the chance it afforded of obtaining cure or relief. Generally the case presented itself thus: A man is incapacitated: he is also in considerable pain by day and by night: he is subject to attacks of hæmorrhage, more or less severe, and of more or less frequent occurrence. If all temporizing or expectant treatment had failed, and the patient refused operation, that man must be regarded as incurable. On the other hand, if he submitted to operation, there was the chance of a readily removable growth being found. Unquestionably, then, it was even well to meet with disappointment in some, if only in a few complete recovery resulted. And even in the failures no harm ordinarily resulted by the mere opening and either immediately reclosing the wound or adjusting a shield and drainage of the bladder. In some cases severe hæmorrhage had been arrested in malignant growth by the mere act of opening the bladder. The operation itself was so well known that the lecturer did not think it needed description.

COMMENTS AND NEWS.

A PLEA FOR A MORE RATIONAL PROGNOSIS IN CARDIAC AFFECTIONS.

J. J. MORRISSEY, A. M., M. D., Visiting Physician, St. Joseph's Hospital; Chief of Clinic Out-door Department, St. Vincent's, New York City, says:—

1. When a heart murmur is discovered, do not give a gloomy prognosis on that simple fact alone; consider the condition of the cardiac walls, the probable length of time the lesion has existed, the presence of dilatation or hypertrophy, or both combined. The occupation and temperament of the patient are very essential factors in the prognosis. Each individual is a law unto himself, and though certain general principles may be established as a basis on which to build a working prognosis, remember we have no real means of recognising the strength of the individual heart, except its power of resistance against the poisonous effects of alcohol and tobacco, or the inroads of the acute or chronic diseases, or the stress of laborious occupations, or the debilitating influence of prolonged exposure. The diagnosis should be complete, the prognosis tentative. Or, as a distinguished English colleague has said: "Give your prognosis on the best suppositions, treat your patient on the worst." (ALLBUTT.)

2. Remember that murmurs do not invariably mean endocarditis, and a prognosis based simply on the presence of a murmur would be rank injustice to the patient, and demonstrate incapacity on the part of the physician. As a skilled observer has well stated: "With an apex-beat in the normal situation, and regular in rhythm, the auscultatory phenomena may be practically disregarded."

3. To those of us who are interested in life-insurance work, this is of great importance. We wish to be just to the applicant, and at the same time do our duty toward the company. The fact that a man has a murmur at the apex, of which he is entirely unconscious, whose heart is doing its work thoroughly, despite the existence of the lesion, whose occupation is not of an adversely laborious character, who has passed that period of life when acute rheumatic infection is liable to stimulate into fresh and renewed activity the latent inflammatory products of an ancient endocarditis, should be factors to guide our judgment as to the probabilities of the future and prompt us in recommending for him a policy commensurate with the degree of cardiac inefficiency.

It should not be forgotten in this connection that a presystolic murmur does not always indicate the most serious of all lesions, viz., a mitral stenosis, nor has a so-called musical apex-murmur any particular significance in prognosis, indicating, as it does, the passage of a stream of blood through a small aperture in the segment of a valve.

4. From the standpoint of longevity, aortic stenosis is a favourable lesion, and the writer must differ from some authors who state that it appears for the most part after middle life. It is found at that period when a man should be at the highest point of physical capability, between 30 and 50. It is true that it is frequently present as part of a general decay, and then develops in consequence of atheromatous changes taking place throughout the system; but it is more frequently present than has hitherto been suspected without such pathological manifestations being present.

5. Do not inform a young man between 18 and 25 that he has heart disease, because you discover some hypertrophy without complications, the result in most instances of active exercise. The writer knows of one individual whose heart is "athletic," a splendid specimen of manhood, whose existence was embittered by the thought of heart disease communicated by a careless and injudicious physician. In this condition it is of course understood that a careful consideration will be given to a large number of causes, independently of hypertrophy; for example, that typical enlargement of the heart co-existing with an interstitial nephritis.

Never hesitate to ask a patient to return for further examination, as the condition then may be entirely different from the first examination. There are more snap "diagnosis" made in the realm of cardiac affections than in the study of diseases in any other portion of the body.

MIDWIVES FOR POOR WOMEN IN BOMBAY.

THE *Indian Municipal Journal* says:—It has been said that the Corporation of Bombay is infested with doctors, but even if it be so, there are times when they prove themselves to be really "handy men." They did excellent work in a committee which recently reported to the Municipal Commissioner on a proposal to provide a staff of qualified midwives in Bombay to take the place of the "ignorant, untrained, and not over-clean women who usually attend at childbirth in poor families."

While agreeing unanimously on the need of this change and on the good that would result from it, there were three dissentients who wished to modify the proposals of the majority. The proposals were briefly as follow:—To engage eight diplomaed midwives and locate two in each of the four divisions of the city. Each midwife should live in the ward in which she is to work, and should be available for rendering assistance free of charge to poor women under rules to be made by the Corporation. The proposed pay of these midwives is Rs. 75 a month with Rs. 25 as a supplement for gharry hire and contingencies.

Dr. Sir BALCHANDRA KRISHNA was of opinion that one midwife in each division would suffice to begin with, and that Rs. 50 would be a sufficient monthly pay. Mr. DHAKJEE CASHINATHJEE was of the same opinion, but Dr. ISMAIL JAN MAHOMED, taking a very practical view of the subject, saw that in view of the possibility of more than two cases occurring in any ward simultaneously and requiring the aid of the midwives, the project might suffer; he therefore suggested that there should be at least half a dozen competent midwives in each ward, and that their pay should be at least Rs. 100 per month. This would cost from sixty to seventy thousand rupees per annum. But, said he, even with this the remedy will not be complete, for besides the mischief caused by ignorant "dhis" and the deep-rooted prejudice, there is the insanitary condition of the houses and rooms where the confinement takes place, and every private practitioner in the city knows in how small, insanitary, and densely-populated houses and rooms confinement cases occur, and how they become victims of fever. "Personally," said the doctor, "I think that unless we provide improved sanitary buildings for confinement for the poor, and give them the assistance of qualified midwives, no benefit will result. In my opinion the Lady Dufferin fund is the proper channel through which the attempt to render help should be made, instead of the Municipality undertaking to do so itself."

The public is indebted to this committee for their report it exposes a state of things which we hope may soon find

a remedy, but taking all the opinions together, it becomes a question of reforming the "dhals" and overcoming some very deeply rooted customs and prejudices. The examples of the Parsees Lying-in Hospital must not be relied on too much, for of all the peoples of India the Parsees have shown the greatest power of adaptability in the line of progress. The much desired change in the treatment of childbirth can only come on slowly, and as a beginning must be made, it can only be with the aid of a few very carefully selected women, whose tact and commonsense will save them from the opposition which too much enthusiasm often provokes.

A "dhal" working among the lower classes will not earn more than forty rupees per month; she does not enjoy much consideration among her clients, but her duties offer occasions for arbitrary and at times reckless acts. If she is fairly well occupied, education would not be likely to increase her revenue, for the client would not pay more, although the service might be worth double the price. How then is better knowledge to be introduced to the "dhal"? It is plain that she must have a practical education, and as a proof of it she must possess a certificate. It is most unlikely that she will pay for her education—so unlikely that the scheme of her education should include her keep. And as it is quite possible that free keep, education, and certificate may not be sufficient inducement to women who can and do make their living without them, a small sum monthly might accompany the certificate for, say, a year after the certificate is granted. The amount of instruction they should receive is a matter of great importance. It is so easy to overdo it by making the standard too high at first, and repelling the class that should be benefited. We would suggest that the course of instruction should be the simplest that could be safely imparted at first, and as time went on it might be extended on the experience gained.

The improvement of the "dhal" is simply a new phase in the great problem of Technical Education—that branch of knowledge which depends so much on the training of hand and eye, and so little on book knowledge. In the present case it must be based on a non-literate standard, in order to meet the conditions of the class it is intended to instruct. Should literary qualifications be insisted on, a quarter of a century will not bring the scheme in touch with the actual requirements of the people, and the average pay remaining the same, the "dhal" will continue to be recruited from the same class as before. The art of imparting knowledge of the right kind, and to the right amount, for educational purposes, is still in a state of very imperfect development.

MASSAGE OF THE EYEBALL.

THE *Journal of the American Medical Association* publishes a paper on Massage of the Eyeball, presented to the Section on Ophthalmology at the fifty-first annual meeting of the American Medical Association, by Dr. CASSEY A. WOOD, M.D., of Chicago. We summarise. The writer speaks particularly of simple, and not instrumental massage. OOSTOMIRIS, of Athens, believed that direct massage of the finger tip on the exposed cornea or conjunctiva gave the best results; but Dr. CASSEY WOOD considered the movements over the lids with slight pressure sufficiently efficacious and certainly less difficult and better borne. The act should never of itself produce pain, and rarely more than a passing discomfort; little was to be gained by the employment of much force. The patient should look down when massaging the upper lid, and up with the lower lid: if the cornea was to receive attention, the patient should look straight forward. It was better to perform a gentle non-irritating massage of even ten minutes' duration daily than a rough, painful

rubbing twice a week. As regards remedial adjuncts for simple massage, the writer used a drop or two of cod-liver or castor-oil, and for the rest preferred oily solutions or mixtures to powders or collyria. When these oleaginous compounds were made perfectly smooth and of a consistency that permitted their ready distribution over the eyeball, it was surprising how little pain or discomfort was set up even by strong doses of such irritants as mercuric chloride, silver nitrate, etc. This was probably due to the fact that massage had an anæsthetic action, probably due to emptying the capillaries and lymph vessels of their contents, and to the continued pressure on the nerve endings. The most useful massage agents were mercurials combined with all sorts of oleaginous excipients. At the end of or during the act, combinations of the remedy with the ocular secretions—especially mucous—should be coaxed out of the sac by small "dabs" of damp cotton or the irrigating stream, and the stroking movements resumed until nothing further comes away. The patient, half an hour after the lid friction, should not experience any added discomfort. In a general way massage would be found most useful in chronic diseases of the eye borders and substance, in almost all subacute and chronic affections included in the term "conjunctivitis," in the second state of acute inflammation of the conjunctiva, in most forms of ulcer of, and deposit in, cornea, and for the temporary relief of glaucoma, and in some forms of retinal embolism. It was contraindicated in "acute conjunctivitis," "keratitis," true trachoma, and in diseases of the iris ciliary body, lens, choroid, vitreous or optic nerve. In young subjects it lessened the opacity following ulcer of the cornea, and was also for the same reason valuable in the treatment of interstitial keratitis.

STERILISED CHARCOAL AS A-SUBSTITUTE FOR IODOFORM IN THE TREATMENT OF SURGICAL TUBERCULOSIS.

FOR the last six months Dr. A. FRANKEL, of Vienna, has substituted sterilised charcoal for iodoform in the treatment of local tuberculosis.

After the wound of the tuberculous tissue, he fills the operation wound with glycerine containing in suspension 10% of powdered animal charcoal, prepared exclusively from bones, and sterilised for 10 to 12 hours in an oven at a temperature of 150 to 160° C.: he then sutures the incision as hermetically as possible, and applies an aseptic dressing, which he leaves in position for two or three weeks.

When the complete closure of the wound by sutures is impossible, he introduces into the wound pieces of white calico saturated in a mixture of glycerin, alcohol and sterile powdered charcoal. At the end of eight days he removes the dressing and proceeds to extract the plugs.

The first thing that strikes one in cases treated in this manner; the absence of those considerable rises of temperature which usually occur and persist for several days after the injection of iodoform and glycerine. In a few cases only has Dr. FRANKEL observed a transitory fever, not above 100.4° F.

As for the effect of the charcoal upon the tissues operated on, it has been quite as favourable as that of iodoform; like the latter drug, the charcoal dries up the secretions, favours cellular proliferation, and leads to rapid cicatrization, which so far has never been followed by any local relapse.

In the experience of Dr. FRANKEL, powdered charcoal has only proved itself inferior to iodoform as a deodorant. Accordingly, in operations for the radical cure of chronic

otorrhoea or of maxillary necrosis with fisted discharge, it is preferable to use iodoform. But with these exceptions, where it is necessary to stimulate the development of fleshy granulations, or the cicatrization of recent wounds, to dry up secretions, powdered charcoal should be preferred to iodoform.

There is one drawback which, however, can be avoided, namely, the tendency to the formation of black pigment at the site of cicatrix, due to the penetration of grains of charcoal into the depths of the skin.

MEMORIAL OF THE STUDENTS OF THE LAHORE MEDICAL COLLEGE.

THE following memorial has been submitted by the students of the Lahore Medical College to the Lieutenant-Governor of the North-Western Provinces:—

"We, the undersigned memorialists, who are students in the Lahore Medical College, from provinces other than the Punjab, and mostly belonging to the University of Allahabad, hail with great joy the news of raising the Agra Medical School to the status of a College with a view to perpetuate the memory of our beloved Sovereign, the late Queen-Emress.

Nothing can be more gratifying to Your Honour's memorialists than that such a beneficial institution, extending its help and utility to all classes of the people of the N.W. Provinces and Oudh, should be established as a memorial to Her Majesty the late Queen-Emress, inasmuch as this is the most fitting tribute that can be offered on such a sacred occasion.

It is with the greatest difficulty and personal inconvenience that we, Your Honour's humble memorialists, have to prosecute our studies here. The extremes of climate of this province, the totally different mode of living, and the extreme trouble in procuring suitable lodgings here, together with the heavy expenditure, all combine to make our stay in Lahore a matter of great sacrifice to our guardians, who are compelled to stay behind at such a distance from us.

Furthermore, an institution like this in the N.W. Provinces will enable such youths to carry on their professional studies, who by reason of circumstances cannot come up here, and consequently are debarred altogether from entering this line.

We, the undersigned, most heartily uphold the scheme, and do consider that it will be a great boon conferred on us and on the community at large, of the North-Western Provinces and Oudh."

ELIMINATION OF MERCURY BY THE MAMMARY GLAND.

THE following communication was made in the Pathological Section at the Thirteenth International Medical Congress, Paris, by M. SIGALAS, of Bordeaux.

M. DUPONG and I have conducted two series of experiments—one on women suffering from syphilis, who have been under specific treatment for several months; the other on a woman and a she-goat who had been given mercury for the purpose.

These researches have led us to conclude, contrary to the opinion of many, that mercury must be counted amongst those toxic and medicinal substances which are eliminated by the mammary gland.

It has to be borne in mind that there is a delay in this elimination, which naturally varies according to the nature

and dose of the product administered, as well as according to the species of animal, the age of the subject, etc. This delay or interval serves to explain the negative results obtained by those investigators who have not succeeded in finding mercury in the milk of animals submitted to this drug, even in large doses.

As regards therapeutics, the fact that mercury is eliminated in the milk proves that the indirect treatment of syphilis in newly born infants by the milk of nurses undergoing a course of mercury is a rational method. But the physician must bear in mind the delay that occurs before elimination begins, and in case of acute manifestations must give the drug direct.

STUDY OF CHEMISTRY IN BOMBAY.

THE *Times of India* says:—Professor RAMSAY, before leaving Bombay, addressed the following letter to Professor GAJJAR, of the Girgaum Techno-Chemical Laboratory:—You asked me on Sunday to put in writing my ideas regarding the chemical work you are doing in Bombay. Well, your laboratory is the only one I have seen in India where commercial analytical work is combined with the training of students. There are many such in Great Britain and the Continent, and, as a rule, they do well, both in furnishing a reasonable income to their chiefs, and in training young men to a practical knowledge of chemistry; and I see no reason why, if you have a reputation for accuracy of work and integrity, you should not be successful. The Institute of Chemistry, of which practically all British analytical and consulting chemists are Fellows or Associates, has done much to raise the standard of education and capacity among professional and consulting chemists. It demands four years of training, besides attendance on lectures on mathematics and physics; it requires either three years' work in certain recognised institutions, such as colleges or universities, or, as an alternative, two years' training in a "recognised institution," and two years in an analyst's laboratory, such as yours. I am sure that you might co-operate with the colleges in Bombay, and, indeed, in the Bombay Presidency, in giving students who wish to take up the career of manufacturing or consulting chemists such a training as the Institute of Chemistry deems necessary.

SUPRA-RENAL GLAND SUBSTANCE IN THE TREATMENT OF BRONCHIAL AND PULMONARY AFFECTIONS.

THE vasomotor constrictor effects of the supra-renal capsules have been utilised in the treatment of asthma with bronchial congestion and in the treatment of gastro-intestinal hæmorrhage.

In the same manner, no doubt, we may account for the good results obtained by this substance by Dr. S. FLORESHEIM, of New York, in certain affections of the respiratory passages, such as acute tracheo-bronchitis, chronic bronchitis, bronchiectasis, congestion and cedema of the lung, hæmoptysis, etc.

In all these diseases the administration of two and a half grains of dried supra-renal substance, in the form of tabloids, produced an amelioration of the symptoms in a few minutes; the cough ceased, the expectoration, the dyspnoea and the physical signs of the lesions (râles, dulness, etc.) improved, the pains disappeared; in cases of hæmoptysis the hæmorrhage was quickly checked.

This action of the remedy, in some cases fairly persistent, is most frequently transitory; further, in order to prolong the effect obtained, it is necessary to repeat the drug every hour, or every two hours, in the same doses of a grain and a half.

PUBLIC COMPLAINT AGAINST THE CALCUTTA MEDICAL COLLEGE HOSPITAL.

The following correspondence appears in one of the leading Anglo-native papers of Calcutta :—

TO THE EDITOR OF "THE INDIAN MIRROR."

Sir,—There is nothing more to be regretted than that the fair fame which had heretofore marked, among others, the Calcutta Medical College Hospital in respect of its treatment of the in-door (Indian) patients by the hospital staff, should suffer, chiefly owing, among other causes, to the high-handedness and unpardonable vagaries of the assistants on duty in the different wards of the said hospital inspired by sheer want of supervision and discipline on the part of the authorities concerned, with the result that the poor Indian patients, who have no resources left to them other than being admitted into the said hospital for medical help, do suffer in a measure which demands the serious attention of the Medical Board, and the public for whose benefit the above charitable hospital has been called into existence. To illustrate the above, I make no apology to publish in your esteemed journal the following correspondence, addressed to the Superintendent of the College Hospital by one Babu BENODE BEHARI BANERJEE on behalf of the aggrieved Babu KADER NATH GHOSAL, aged about 60, of village Gangnapore, District Jessore, who was suffering from ulceration in the *testes*.

Yours, &c., FAIR PLAY.

HUGELY; dated 15th February 1901.

"52, CHAMPATOLA 1ST LANE; Calcutta, 29th January 1901.

To—The Superintendent, Medical College Hospital, Calcutta.

Dear Sir,—I beg to bring to your notice that a patient, seriously affected with ulcers in the testicle, was admitted into Dr. ——— ward on the night of the 18th instant with number 16, bed No. 175. He was under treatment in the hospital for a week and was fairly improving, but on the 27th instant, when my brother went to see him after 11 A.M., he was ordered by Dr. ——— and the nurse of the ward to take the unfortunate patient away without delay. My brother was of course surprised to hear this, and entreated the said Doctor to allow him to remain there until his recovery; but the nurse in charge immediately ordered a palankeen and discharged the poor man without showing any cause whatever. Thus compelled, the poor man was removed to No. 52, Champatola 1st Lane, and there having no sufficient accommodation, was taken away yesterday to his native village, where he is sure to die without any medical help.

As I have been put to great inconvenience and trouble by the unkind orders issued by the said Doctor and the nurse of your charitable hospital, and as the said orders are likely to result in the death of the poor patient, disgracing the glorious fame of your hospital, I shall be thankful to you if you enquire into the matter, and let me know why the poor man was abruptly discharged from the hospital when he was apparently on the way of improving. Soliciting the favour of an early reply.

I remain, Dear Sir, yours faithfully,
(Sd.) BENODE BEHARI BANERJEE."

SINCE our serious and severe comments on the Calcutta Medical College Hospital have been published and brought to the notice of the Government in various ways, there has been considerable official manoeuvring at that great institution. It has been honored by two visits from the Lieutenant-Governor of Bengal, by several from the Inspector-General of Civil Hospitals, and by others from that singularly invisible official, the Director-General, I. M. S. It has been agreed that there is something rotten in the state of Dpdmak, but whether there will be a real cleansing of these Augean stables, is quite another matter. We protest against this hole-and-corner style of dealing with public scandals. There is a great deal wrong with the ~~defect~~ management of this large public institution, and much as the visits of high officials may do towards effecting some good, nothing but a sifting investigation by an independent mixed committee of

officials and non-officials will rid the Calcutta Hospital system of its defective medical attendance and of its old-standing and firmly rooted evils. It is against a system, rather than individuals who work that system, that we complain: Will not the Lieutenant-Governor order such enquiry?

A STORY ABOUT THE QUEEN.

WHILE visiting the wounded at Netley, Her Majesty was greatly distressed by the appearance of one poor man whose face had been terribly injured by the fragment of a shell. "Is there nothing," said the Queen, "that I can do for you?" The soldier replied, speaking with difficulty owing to his injury, "Nothing, Your Majesty, unless you would thank my nurse for her kindness to me." The Queen turned to the nurse, who was standing close by, and said with tears in her eyes: "I do thank you with all my heart for your kindness to this poor wounded son of mine."

UNPREJUDICED TESTIMONY AS TO VACCINATION.

THE State of Georgia is one of the few in the American Union still without a State Board of Health. A Bill has, however, been prepared, authorising the State Medical Society to name four medical practitioners, and the Governor to name five others, who together shall constitute a State Board of Health. Among those who will be sorry to hear this news, we may venture to assume, is a certain transplanted—"aunty" who, when the public vaccinators appeared at her door, exclaimed "O Lawd! I wisht I was back in ol' Georgy. Dey have small-pox der all de time, an' dey don' never vaccinate nobody."

PROTECTION AGAINST BLACKMAIL IN THE UNITED STATES.

A BILL for the protection of physicians and surgeons from blackmail and unjust malpractice suits is, we learn from the *Medical News*, to be introduced into the New York State Legislature this session. Its most important provision will be the requirement of a bond from any one bringing a suit against a medical practitioner for alleged malpractice. This bond is to be forfeited in case the judgment goes against him.

SHORT ITEMS AND PERSONALITIES.

The medical health officers of England are now devoting their attention not so much to water contamination as to beer adulteration. Numerous cases of peripheral neuritis have developed, and the cause has been found to be in the arsemenal adulteration of beer. The resemblance of this neuritis to another form has suggested the name "Beery-Beery" as descriptive of it.

A large increase in the number of deaths from plague is reported. During the week the mortality reached 4,773 against 8,416 in the previous week. The increase is general, save in Mysore. In Patna and Bombay the mortality has risen rapidly. At Karachi the Municipality is unable to meet the expense of plague measures and looks to Government for assistance.

Professor Carl von Noorden says that the century has not produced any single drug which has a decidedly curative effect in diabetes. He speaks highly of several vaunted remedies, and says that their virtue lies in the fact that patients are kept upon a strict diet at the same time that they receive the drugs.

Colonel Lawrie, I. M. S., vacates the appointment of Residency Surgeon, Hyderabad, which he has held for many years, in May next, and will be succeeded by Colonel Gimlette, I. M. S., from Indore. Colonel Lawrie was also Director of the Nizam's Medical Department, the allowance for which is Rs. 1,700 a month.

Surgeon-General Spencer, P. M. O., Punjab Command, will officiate as Director-General of the Indian Medical Service when Surgeon-General Harvey proceeds on furlough next month.

Mr. P. N. Lakshmanan, M.B., C.M., Madras, has passed the D. P. H. of the B. C. P. of London.

WANTED—A POST BY AN ASSISTANT SURGEON willing to serve in a Native State in the Railways or any Municipality, &c. Apply V., C/o The Manager.

Current Medical Literature.

MEDICINE.

Early Diagnosis of Pulmonary Tuberculosis.

BELL (*St. Paul Medical Journal*) emphasizes the importance of obtaining a complete personal and family history of the patient suspected of having tuberculosis. Anal fistula or ischio-rectal abscess should excite suspicion. Clinically tuberculous patients may be separated into three classes: First, a class presenting the symptoms of causeless dyspepsia, gradual loss of flesh, inability to bear exertion, accelerated pulse, slight afternoon rise of temperature, pale or sallow skin, slight cough; later, positive physical signs and microscopic evidence of infection. Second, a class consisting largely of young females presenting at first the symptoms of slight but progressive anemia, loss of flesh and strength, breathlessness on slight exertion, slight elevation of temperature, pulse small, increased in frequency and the arterial tension higher than in cases of primary anemia of the same grade; later, cough, free expectoration, night-sweats and all the "classic symptoms of pulmonary tuberculosis. Third, a not inconsiderable class where the first warning is a hemorrhage or a series of slight hemorrhages without provocation in an individual apparently in perfect health, followed in a large percentage of cases by increased pulse-rate, considerable elevation of temperature and all the other evidences of tuberculous infection. The author says in his experience a dry, harsh, lusterless condition of the hair is of diagnostic value in relation to tuberculosis. Continuous dilation of the pupils, occasionally one more than the other, is a frequent early sign of this disease. A general discussion of the findings on inspection, palpation, percussion, auscultation, thermometry, etc., are discussed. He says of the newer diagnostic methods none give more promise than the serum method of diagnosis. AROLIN and COURMONT claim as high as 100% of reactions in cases known to be tuberculosis.

Treatment of the Optimum Habit by Bromides.

CHURCH now employs the bromides in the following method: The drug is only given during the daytime. For the first day 120 grs. of sodium bromide, dissolved in a tumblerful of water, are given every two hours till 1 oz. has been taken. Next day smaller doses are administered in the same way. In some cases it is necessary to continue the use of the drug for the third day. When it is stopped, the patient is in a very profound state of drowsiness, so that it is impossible to arouse him, or he is incoherent. As the action of the bromide is cumulative, this drowsiness continues to deepen for a day or two after the drug is stopped, and a comatose condition may develop with difficulty in feeding the patient, requiring in some cases rectal alimentation. As one of the chief dangers lies in aspiration pneumonia, feeding has to be very carefully attended to, and CHURCH holds that any septic condition of the mouth or nasal cavities forms a contraindication to the bromide treatment. As sodium bromide depresses heart and respiration, the treatment is dangerous for those with weak hearts or pulmonary complications. CHURCH further reports a case of fatal nephritis which seems to point to an action on the kidney. That the method of treatment is not without danger is shown by the fact that out of twelve cases three died, though the death could only remotely be attributed to the bromide. Still, taking into consideration the difficulties of the ordinary line of treatment, CHURCH thinks that the bromide treatment is of considerable value in properly selected cases, if adequate hospital control can be obtained.—*New York Med. Jour.*

Ulceration of the Stomach.

In the Section of Internal Medicine at the recent International Congress, Professor DIEULAFOY presented a communication, of which the following are the conclusions: There are found in the stomach ulcerations of every size, from the minute punctiform erosion up to large deep ulcers bigger than a five-franc piece. Digestive disturbances, gastric intolerance, vomiting, hæmatemesis, perforation of the stomach with its consequences, and the addition of cancer are symptoms and complications common to many

ulcerations of the stomach. Instead of passing in review each of these symptoms and complications, DIEULAFOY thought it preferable to choose among ulcerations of the stomach a certain number of types representing, from the clinical, pathological and anatomical point of view, sharply-defined morbid entities. As examples of some of these types he gave the following:—(1) Erosion is the smallest of ulcerations, it shows itself on the mucous membrane in the form of hæmorrhagic points more or less numerous. Notwithstanding their minute size, the erosions might cause abundant hæmatemesis. (2) In certain circumstances there are found on the mucous membrane of the stomach one or more losses of substance a little more extensive than erosion. DIEULAFOY has proposed for this lesion the name "ex-ulceratio simplex." However superficial it appears, this ulceration may reach the arterioles running under the muscularis mucosæ and cause terrible hæmorrhages, often proving fatal if treatment does not prevent this consummation. (3) The simple ulcer of CHUVPIERRE (ulcus simplex) is the type of gastric ulcers chronic in evolution and tending to perforation. Hemorrhage and perforation are the complications most to be dreaded. (4) Mention should also be made of specific ulcers of the stomach, due to tuberculosis and syphilis, and possibly, like simple ulcer, leading to hæmorrhage and perforation. (5) It not rarely happens that cancer grafts itself on a ulcer of the stomach. (6) The pathogeny of gastric ulcerations is not yet completely cleared up. Infectious agents, toxic agents, arterial lesions, and changes in the gastric juice must be taken into account. It is possible that an ulceration, quite small at first, may end in ulcer simplex. (7) The treatment of gastric ulcerations is, according to circumstances, medical, specific, and surgical.—*Brit. Med. Jour.*

A Study of the Inoculation Theory of Malarial Fever.

ALBERT WOLBERT states that one may devise either of two methods in studying the relation of mosquitoes to malarial fever; first, to search for the anopheles in its native haunts, and then for the case of malarial fever; or secondly, to find the case of malarial fever and afterwards look for the anopheles. According to observations made by different scientists in various parts of the world, it has been demonstrated that not all genera of mosquitoes are capable of inoculating man or birds with malarial fever. This power so to do appears to rest solely with the different species of the genus anopheles. Studies of the human blood reveal the presence of certain small, round, actively motile, intracorporeal organisms. These grow to full development at the expense of the red blood disc, and subsequently rupture, setting free a number of hyaline bodies that at once re-enter other erythrocytes. These results therefore go to show that the sporozoa or plasmodia of LAVERAN require for their complete existence two biological cycles—one being completed in the body of man, the other being completed in the tissues of the mosquito. Should the mosquito be the only agent in disseminating malarial fever, the destruction of the larvæ or pupæ of that insect would be only one way of getting rid of the disease. MANSON suggests the following methods: (1) To begin by administering quinine for long intervals in all cases of malarial fever, since a single man is a source of infection to a whole locality; (2) to cause all persons suffering with malarial fever to sleep under mosquito netting; (3) to compel all the uninfected to sleep in mosquito-proof houses or beds; (4) to kill by different causticides all mosquitoes entering houses; (5) to destroy all the mosquito larvæ before they reach maturity or the biting stage—to which might be added the destruction of the adult mosquitoes in their places of hibernation; (6) the combination of all these methods.—*Jour. Amer. Med. Assoc.*

SURGERY.

Safest Method of Removing the Appendix.

A. A. WARREN, M.D. (*Lancet*), says:—There are three methods of removing the appendix:—(1) The continental; (2) the English; and (3) DOYEN's, which is best, because it is the simplest and safest.

1. The continental method—that commonly followed by TERRIER, MARTMAN, and most Paris surgeons—is simply to ligature the appendix near its base, resect it with the thermo-cautery, cauterise the stump, and then let it fall back into the abdomen. This method is faulty, because it leaves loose and open in the abdomen the cauterised lumen which, even if effectively cleansed, is almost certain to adhere to neighbouring parts. If effectively cleansed, a peritoneal abscess and generalised peritonitis may result.

2. The English method is to dissect back a collar of peritoneum which is finally stitched over the ligatured stump of the appendix. This method is an improvement on the former, but is also faulty in being more difficult, and in exposing the field of operation to a leakage of the bowel contents in the event of an accidental puncture or opening of the appendix. In the case of an inflamed and diseased appendix this accident is difficult to avoid if attempts are made to strip off the serous covering.

3. DOYEN's method is the best. It is simple and rapid; the appendix is not opened, so infection of the peritoneum by escape of bowel contents is not possible, and in the event of infection and suppuration, the pus must discharge into the lumen of the bowel. The little mesentery of the appendix is first ligatured with a small silk ligature to free the appendix laterally. Then (1) the base of the appendix is gently crushed with DOYEN's small clamp. Almost any forceps suffices for this purpose if strong enough and broad enough to completely occlude the appendix for a breadth of, say, a $\frac{1}{4}$ in.; (2) a fine silk ligature is thrown round the base of the appendix in the furrow left by the clamp; (3) the appendix is removed by the thermo-cautery close to the ligature; (4) a purse suture is made in the serous covering of the cæcum close round the base of the appendix (as this purse stitch is drawn tight, the little stump is invaginated so that all is completely closed); and (5) for safety a second fine silk purse stitch is made and the little pucker of the first stitch is similarly invaginated and the ligature is gently tightened. The result technically is perfect, and this is the most aseptic method of removing the appendix.

Tuberculous Lesions from a Clinical Point of View.

CHRONIC inflammation of a joint in a child or young person, says E. OWEN (*British Medical Journal*), is always tuberculous, except in those very rare cases in which it is due to hereditary syphilis or osteoarthritis.

Tuberculous inflammation may completely destroy a joint, and then leave it solidly and soundly synostosed, without the surrounding tissues or the skin having been implicated.

If tuberculous granulation tissue breaks down into a fluid, that fluid is not pus, and the collection is not, properly speaking, an abscess—unless by bad fortune, or by worse surgery, it has become infected by septic micro-organisms.

The fluid collection is not to be treated as an abscess—that is, by incision and drainage—but is to be opened and emptied, and scraped and cleansed of its unhealthy lining of granulation tissue. Then the wound in the skin is to be completely closed by sutures, firm pressure is to be evenly applied, and the part is to be kept absolutely at rest. The success attending this line of treatment leaves, as a rule, little to be desired, or that for this important advance in practical surgery we are chiefly indebted to the patient

researches of our friends with the smock-trocks and guinea-pigs.

"I have," says the writer, "failed to discover that Iodoform is of any peculiar value in the treatment of tuberculous lesions. At any rate, I have long since discarded it, and I have not noticed any falling-off in the results of my practice in consequence. Iodoform is an irritant and a poison; it is apt to be septic, as germs can grow upon it."

Anthrax successfully treated by Local Injections of Pure Carbolic Acid.

FISHER (*Therapeutic Gazette*) reports a case of anthrax in a man, aged 36, who had been employed as a card-stopper in a large woollen mill. The disease began eight days before admission. When first seen his temperature was 104° F.; he complained of headache and weakness; the tongue was heavily coated and the bowels were constipated. The affected arm was very painful and considerably swollen. On the day after admission 1 drachm of carbolic acid (10%) was injected into and around the eschar on the forearm. On the following day his condition was slightly improved, and 1 drachm of pure carbolic acid was now injected into, around and beneath the eschar. These injections of pure carbolic acid were given daily for the next four days, after which the symptoms had almost entirely disappeared. At no time was carbolic acid detected in the urine, although the patient had had one injection of carbolic acid (10%) and six injections of pure carbolic acid in drachm-doses daily. After three injections the temperature fell to normal, and after five injections the eschar ceased spreading. JAKOWSKY has reported 72 cases of anthrax, all of which were cured by the local injection of carbolic acid.

Treatment of Purulent Pleurisy.

G. MARION emphasises the following points in the treatment of purulent pleurisy: (1) Evacuation as soon as the presence of pus is determined. (2) Avoidance of general anaesthesia, which favors syncope and asphyxia which are comparatively frequent during operation for empyema. (3) The point of evacuation should be at the most dependent spot. (4) The pleura should not be irrigated. The writer gives an account of thirteen cases of purulent pleurisy, not tuberculous, which he has treated. Two patients died during the operation—one from syncope, the other from asphyxia. Probably, if they had not been anaesthetised, the accident would not have occurred. Another died a month after operation from amyloid degeneration of the viscera. His operation had been performed at least two and a half months after the beginning of the pleurisy. Another, who was not operated on till two and a half months after the beginning of the pleurisy, developed a sinus which demanded a second operation. This would undoubtedly have been avoided had the first treatment been early. The other ten patients made a rapid and complete recovery. The bacteriological examination which was made in eight cases demonstrated the pneumococcus in two cases; in one case the staphylococcus associated secondarily with the pneumococcus; in five cases the streptococcus associated with anaerobes.—*La Presse Médicale*.

Differential Diagnosis of Intestinal Obstruction.

Z. BOYLSTON ADAMS says that the differential diagnosis is between obstruction and dysentery, chronic and tuberculous peritonitis, and catarrhal enteritis. From the point of view of treatment, the most important differential diagnosis lies between strangulation and impaction or closure of the intestines, occluding the lumen, whether from within or from without. When palpation under ether fails to disclose the nature of the tumour, the anamnesis is of importance. The family tendency, the fact of injury or of surgical operations, of previous attacks of similar nature, of hernias, reduced or not, of the ingestion of indigestible substances, poisons, etc., should be inquired into. Examination per rectum should never be omitted, and the persistent use of high injections may often accomplish much. The employment of purgatives or opium is misleading and dangerous. When a diagnosis of intestinal obstruction is made, the surgeon should be called in.—*Boston Medical and Surgical Journal*.

OBSTETRICS AND GYNECOLOGY.

Cæsarean Section.

ROBERTS reports a case of CÆSAREAN section upon which he remarks as follows: CÆSAREAN section was performed in this case, because the pelvic cavity was blocked by a fibroid tumour of the uterus, so that the conjugate diameter was reduced to 1½ inches, rendering even cephalotripsy impracticable. The tumour sprang from the posterior wall of the uterus, and it was intended to remove it at the time of the operation, but it was found to be so firmly adherent to the rectum and the sigmoid flexure as to prohibit any further interference. The uterus was not drawn through the abdominal wound until it had been opened and emptied of its contents. This procedure allows of more easy manual compression and thus prevents hæmorrhage; it also facilitates accurate suturing of the uterine wall and a thorough cleansing of the abdominal and pelvic cavities. The sutures used were of silk, and they were passed through the peritoneum, the uterine muscle, and the mucous membrane. No abdominal pelvic drainage was adopted, but the uterus was packed with gauze through the vagina. The acute sepsis which occurred was, in his opinion, benefited by the injection of antistreptococcus serum. The patient's temperature was not normal throughout the day until about six weeks after the operation, after which she steadily improved. The uterus shrunk to a hard mass quite fixed in the pelvis. The child was fed artificially and is healthy.—*Phil. Med. Jour.*

Indication for Operative Interference in Extrauterine Pregnancy.

PROCHOWNICK, in concluding his article upon the Indications for operative interference in extrauterine pregnancy, says that all his observations of the last few years have more and more convinced him that an early and radical abdominal operation is the best and wisest conservatism: that in cases of an intact fetal sac with probable tubal abortion and considerable hæmatocele, or if after a pause a secondary hæmorrhage sets in, he would advise an early radical operation; or if fever is associated with the extrauterine pregnancy, he would urge an operation quite energetically, preferring the abdominal section, as it promises a better oversight of the technique, a more radical cure, while the danger is no greater than by the other way. But if consent cannot be obtained for the radical operation, or if the patient has not come under one's care at a suitable time, the further procedure must depend upon the course of each case. In general, he prefers a conservative course, as he thinks secondary operations give little satisfaction to either patient or physician. Here then lies the field for incision and drainage by the vaginal route.—*New York Med. Jour.*

Condition Three Years after Operation of Fifty Successful Consecutive Ovariectomies.

J. D. MALCOLM, M.D., says:—Of fifty successful ovariectomies performed by him three years or more previously, thirty-two patients were found in really good health, fifty had little to complain of, three were in an unsatisfactory condition, and three had died. Of the fatal cases, one patient died of bronchitis two years after operation, and the two others had recurrences of malignant disease. The author also reports some cases that were refused operation, and a series of fatal cases not hitherto published, of ovariectomy and of operations undertaken when ovarian tumours were supposed to exist.

The study of these and other cases has strongly impressed the author with the importance of an early recognition and removal of ovarian neoplasms. When a tumour is buried deeply in the broad ligament at the beginning of its growth, it is only by the merest chance that its removal will become more easy as time passes. In every case, delay in operating exposes the patient to the onset of complications which may

cause great difficulty and great danger when the abdomen is opened or before an operation is arranged for. When inflammatory conditions are set up around an ovarian growth, the risk is very much greater than it is when there has been no trouble after complete recovery from the operation or inflammatory disturbance. Yet when an operation has been too long postponed, its performance may greatly hasten the fatal issue. An ovarian tumor is sure to give trouble sooner or later, and it should therefore be removed as soon as diagnosticated, if such treatment seems at all practicable.—*New York Med. Rec.*

Method of Inducing Peristaltic Action after a Peritoneal Section.

BYFORD advocates the systematic method of inducing peristaltic action as soon as possible after a peritoneal section. He first used this method for the purpose of preventing intestinal paralysis and adhesions, and he noticed in the cases thus treated a marked improvement in all after-symptoms. There were practically no temperature cases, no crying for morphia, no bloating, no fixed pains, and seldom any subsequent pain in the ovarian regions, even when firmly adherent appendages had been removed. The method advocated consists of 4 drachms of fluid extract of cascara, or some equivalent, 2 hours before the time set for the operation, drachm doses of magnesium sulphate every hour from the time the patient awakes after the operation, and a high glycerin and water enema (2 to 4 ounces) every two hours, beginning eight hours after. A high glycerin enema was given before the patient left the table after operations in which adhesions were separated and raw surfaces left. The treatment must not, as a rule, be discontinued until the patient passes flatus, not only with the enemas, but freely between enemas. Means must be taken to maintain frequent peristalsis, and a daily evacuation of the bowels after the first days. To that end 2 drachms of magnesium sulphate or 2 or 3 ounces of Hunyadi water are given night and morning for two weeks, the dose being regulated according to the effect.

A Plea for more Frequent Avoidance of Exsection of the Ovaries in Connection with Operations upon Diseased Tubes.

PHILANDER A. HARRIS states that less than three years ago he abandoned the routine practice of removing the ovaries with their diseased tubes. He spares as much ovarian tissue as possible. He remembers but two instances in which a surgical menopause followed double-tube amputation or excision during this time. To the woman of respectability, her knowledge that she is not as other women are will be a strong factor in causing her unhappiness. The writer believes that sufficient ovarian stroma may be saved to maintain menstruation and ovulation in at least ninety per cent. of all the bilateral tubal amputations and exsections for the so-called purely inflammatory lesions of and primarily in the tubes, and that a cure of pelvic pains does not depend on the removal of the ovaries, but on a removal of the disease from the fallopian and uterine sinuses. A woman with sufficient ovarian stroma for menstruation and ovulation, but with one tube exsected and the other amputated, is not likely to conceive. Still pregnancy is possible in her case.—*New York Med. Jour.*

Birth after Vaginal and Ventral Fixation.

DR. LIEBER reports the case of a woman, forty-two years of age, who had had a vaginal fixation performed for a retroflexion, and who later gave birth to a normal child. Subsequently the perineum was found to be lacerated, the anterior vaginal wall prolapsed, and the uterus again retroflexed. Ventral fixation and anterior and posterior colpoperaphy were then performed. In the next pregnancy the patient did not feel at all well—nausea and vomiting were almost constantly present. When labor set in, a prolapse of the arm occurred, the cervix lay high in the narrow vagina, and a version upon a dead child was done with the greatest difficulty. The author concludes by praising the ALEXANDER operation as the one most nearly approaching the physiological when the birth act is considered.—*New York Med. Rec.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Heller's Albumin Test of Urine.

FURSELL describes the various rings observed in HELLER'S nitric-acid test for albumin, and concludes his article as follows: It would seem after these observations and the demonstrations that in making HELLER'S test three rings are formed: (1) The color ring. This ring forms in practically all urines, whether there is albumin present or not. It is especially marked in concentrated urines rich in coloring matter, and in the urine of patients taking iodide of potassium or salol, or indeed any of the coal-tar products. It is at the point of contact between the acid and urine. (2) The white zone of albumin which forms at the line of contact between the urine and the acid, but always above the dark, constant, color ring. This ring is of a densely opaque white, and I think this is especially the fact when there is but little coloring matter in the urine. If there is a small amount of albumin present, however, as in urine containing pus, the ring is less dense, but nevertheless in close contact with the layer of acid and immediately above the color ring. (3) The urate ring, which forms high above the albumin ring, if albumin is present. The color ring forms at the line of contact of the acid and urine, and the color usually disseminates into the acid below and sometimes into the white albumin ring above. It is always below the albumin ring. The white albumin ring also forms at the point of contact of the acid and the urine; it is wholly in the urine and always above the coloring, though later on it may be somewhat discolored by it. The urate ring, a white thin zone, quickly forms, is far above, sometimes one-quarter or one-half inch above, the albumin ring, and is easily dissipated by heat.—*Jour. Amer. Med. Assoc.*

Modification of the Mosquito Theory.

CHARLES R. GRANDY (*Medical News*) declares that he believes in the potency of the anopheles to propagate the malarial organism, but he also believes that they can and do obtain organisms from other sources than direct from the human blood. He thinks it probable that when feeding on other things than human blood (which seems to be more of a delicacy than a staple article of diet with the mosquito tribe), it also injects the parasites into whatever it is eating. Other uninfected anophelis may take in the parasites directly from this food or water; or the plasmodia, in the form in which they are found in the parotid glands, may be able to live in water or damp soil as other sporozoa do, and later on they may be taken up by other anophelis and be inoculated by them into man. It is also possible that the plasmodia may pass into the water from the bodies of the anophelis which have died in the water after depositing their eggs, and may be taken up in feeding by other mosquitoes. Whenever malarial fever regularly appears, there is found the anophelis. Anophelis breeds only in pools, and not in tube: it is the country mosquito, in contradistinction to culex, which is found in both towns and country. They feed at night. They are most numerous at the time of the heavy dews in August and September. Their larvae feed on algae: hence the theory that stagnant water causes malaria. The two objections to this modified theory are: (1) The malarial organisms have never been cultured artificially: but no other parasitic protozoon has been thus cultured. (2) They have never been found free in nature; but the tiny thread-like organisms are so minute that they could easily escape observation when looked for in water. The writer believes that although there is as yet no positive proof of this theory,

still it comes nearer fulfilling all conditions and answering all objections than any other which he has seen.

Relation of Cholelithiasis to Disease of the Pancreas and to Fat Necrosis.

EUGENE L. OPIE states that the association of these two conditions has been mentioned by a number of writers. When anatomical conditions are favorable, disease of the pancreas may occur as a complication of cholelithiasis when a calculus passes along the common bile duct. The lodgment of a stone near the orifice of the bile duct, where it may at the same time compress and occlude the duct of WISSUNG, is not uncommonly a cause of pancreatic lesions and disseminated fat necrosis. Should a calculus become impacted in this position, the cases reviewed by OPIE show that one of several conditions may result: (1) An individual, usually in fairly good health, with perhaps a history of previous gall-stone colic, is suddenly attacked with pain in the epigastric region, accompanied by vomiting and followed by collapse. Death occurs usually within forty-eight hours, and at autopsy gall-stones are found in the bile passages, while the one which caused the fatal attack may be still lodged in the common duct near its orifice. The pancreas is enlarged, infiltrated with blood, and hæmorrhage may have occurred into the surrounding tissue. Foci of fat necrosis are usually present. (2) A fatal termination may not follow rapidly the symptoms mentioned. Pain in the epigastrium persists, jaundice may be present, and a tumor mass above the umbilicus may indicate a probable lesion of the pancreas. At the end of one or more weeks or months death occurs, often with symptoms indicating the presence of suppurative inflammation, presumably in the neighbourhood of the gland. At autopsy the diagnosis of cholelithiasis is confirmed by the presence of gall-stones in the gall-bladder or in the bile ducts, and occasionally the offending calculus is still lodged near the junction of the common bile duct and the duct of WISSUNG. The pancreas is dry, black, and necrotic, and evidence of previous hæmorrhage may be present. Secondary infection has occurred, and the pancreas lies in an abscess cavity formed by the bursa omentalis. In the wall, and often widely disseminated in the abdominal fat, are foci of necrosis. Since the individual has survived the primary lesion, opportunity has been given for the development of secondary changes in the injured pancreas and neighbouring fat. (3) In certain instances long-continued or repeated obstruction of the pancreatic duct by gall-stones does not cause the acute lesions described, but produces chronic inflammatory changes.—*Amer. Jour. of the Med. Sciences.*

Three Micro-organisms other than Klebs-Loeffler which produce Membranous Angina.

BISSELL (*Buffalo Medical Journal*) says the Bureau of Bacteriology in the city of Buffalo has observed that streptococcus pyogenes, and the micrococcus of sputum septicæmia which belong to the bacteria, and Oidium albicans, which belongs to the group of fungi, are each capable of producing a pseudo-membranous inflammation which macroscopically cannot be differentiated from that produced by the KLEBS-LOEFFLER bacillus. So far as observed in that city, the Oidium albicans has never caused a fatal angina; but at least one death has been caused by each of the other germs named, in both of which cases the antitoxin of diphtheria was used without appreciable effect. Several deaths from the streptococcus pyogenes have been reported in New York City, in which nothing but a bacteriologic examination could distinguish the infection from a true diphtheria. The author draws the following conclusions: (1) Streptococcus pyogenes and the micrococcus of sputum septicæmia can produce membranous angina, accompanied by physical disturbances sufficient to result in death. (2) Oidium albicans produces pseudo-membranous exudates easily mistaken for the KLEBS-LOEFFLER inflammation. (3) The only positive means of determining a KLEBS-LOEFFLER infection is by microscopic methods. (4) From the sanitary standpoint, as regards quarantine, anginae due to streptococcus pyogenes, micrococcus of sputum septicæmia and Oidium albicans require little consideration.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Ought Vaccination and Revaccination to be Obligatory ?

G. LEMIERRE speaks strongly in the affirmative on the subject. Vaccination is obligatory in France for all children. Revaccination is obligatory for all healthy men, but women and invalids are not bound to this obligation. The writer believes that not only vaccination, but revaccination after the end of several years should be obligatory. He quotes GUINON's statement that out of seven hundred and thirty-four nurses employed in the small-pox hospital in London during a period of ten years, only ten were attacked by the disease. These men had not been revaccinated. All the others who escaped had either suffered from the disease or had been revaccinated. As to the interval between the vaccinations, it is now admitted that revaccination should be practised every five years in children, and perhaps a little less frequently in adults after the age of twenty-five years. LEMIERRE, like BROUARDEL, thinks that as a matter of national interest in time of peace, and especially in time of war, vaccination and revaccination should be practised throughout the nation.—*Journal des Sciences Médicales de Lille*.

Therapeutics and Hygiene of Obesity.

AT the recent International Congress at Paris, DESCHAMPS read a paper with the above title (*Le Bulletin Medical*). We should not content ourselves with a mere momentary reduction of weight, but should aim at securing physiological equilibrium between the ingesta and egesta. Diet, calorification, and muscular exercise are the most important elements to consider in the hygiene of obesity. The dietetic regimen should guarantee the patient sufficient food for all his needs, which includes the maintenance of all the gastro-intestinal functions. The regimen of choice is one in which vegetables predominate, and from which farinaceous and feculent articles need not be excluded. Water, pure or slightly alkaline, is the only drink to employ, and enough should be taken to quench the thirst. In certain cases it may be necessary to recommend an excess of water. Physiological calorification plays the chief rôle in reducing the weight of the corpulent. This is effected by prolonged bathing, the temperature of the water ranging from 38° to 36° C., and the duration one to two hours. The static-electric bath is an adjuvant of incontestable utility, as it also favors organic combustion. Muscular exercise cannot be imposed on the obese beyond a certain point. It is useful when regulated, but dangerous when it goes beyond the endurance of the individual. The temporary loss of weight obtained by its agency is more than offset by disorders of function which are set up.—*American Medical Review of Reviews*.

Hygiene and Therapeutics of Puberty and of its Diseases in Woman.

PAUL DALOHE believes that, as far as possible, the young girl at the period of puberty should live at home in order to avoid privation and fatigue. The child cannot have the freedom of air and sun in even the best regulated school that she is free to enjoy at home. The diet should be generous; the meals should be frequent and be composed to a great extent of roasted or broiled meats and wine. Constipation should be avoided. Cold should be avoided at the menstrual epoch, especially in the young. Clothing should be carefully chosen: it should not compress the organs; it should protect efficiently against variations of air and climate. Exercises, gymnastic and other forms, as well as hydrotherapeutic measures, should be intelligently prescribed. Faulty attitudes, so often assumed, should be condemned; if indulged in, they should be corrected. The eyes should

be carefully watched. The author quotes from LAWSON TAIT, who believes in the association of the two sexes. He states that although it may be a pure coincidence, yet he has noticed ovarian hyperemia, especially in young girls who have no brothers, or whose brothers are younger than they. Leucorrhœa is the most frequent and the earliest affection of puberty. It results from the hyperemic state which accompanies evolution of the uterus, and which provokes a hypersecretion of the mucosa; but it is also often an expression of a debilitated condition. This discharge may cause a vulvar eruption. For such a case boiled hot water should be used, the surfaces isolated, and talcum powder applied. The writer lastly considers vulvar pruritus and eruptions with their treatment.—*Bulletin General de Thérapeutique*.

Arsenic and Insurance.

THE Gironde Court of Assizes has devoted several sittings recently to a grave charge of poisoning. The facts were as follow:—A. M. FAYOLLE, of Bordeaux, married a few months ago a young lady of the town, who had a small fortune of about £3,000. She was of delicate health, and shortly after the wedding he obtained a will naming him her sole heir. In addition, he managed to obtain an insurance policy on his wife's life for £8,000. Mme. FAYOLLE died not very long afterwards, and the circumstances being suspicious, a *post-mortem* examination was ordered, which led to the discovery of arsenic in the viscera. The experts came to the conclusion that it was a case of criminal poisoning. On the other hand, evidence proved the medicine Mme. FAYOLLE was taking by the doctor's order at the time of her death contained arsenic, as the prescription showed. But the doses prescribed by the doctor and dispensed by the pharmacist was nothing like the quantity found in the body by the experts after death. Several pharmacists came forward to say that M. FAYOLLE had attempted on various pretexts to obtain poisons from them, and one stated that the defendant had been supplied in his pharmacy with arsenic, on the plea that it was wanted for poisoning rats. The prisoner energetically protested that he was innocent, and as Professor POUCHET, of the Bordeaux Faculty, severely criticised the expert evidence on the ground that it was not conducted on the latest scientific basis, the case was adjourned until the next session.—*Chemist and Druggist*.

Right of Property in Medical Records.

AT a recent meeting of the Society of Legal Medicine, according to the Paris correspondent of *The Lancet*, M. BROUARDEL brought forward a most interesting point in reference to a matter upon which he had been consulted. A medical man died, and his only son, also a medical man, entered into possession of his father's house and carried on the practice. He was anxious to consult certain notes and observations accumulated by his father which were stored away in the consulting room; but his step-mother (*bellemère*) as co-heiress refused to let the son make use of the notes, ostensibly on the plea that she was anxious to avoid any violation of professional secrecy. M. BROUARDEL was of opinion that there would be no violation of secrecy, but simply a continuation of the trust from the first medical man to the second, who succeeded and who would take over the medical observations collected by his predecessor. A legal expert, however—namely, M. DANET—held a different opinion, and thought that all the notes and case-books should be burned. In face of this difference of opinion, the question should be left to the courts to decide. In the course of the discussion at the Society of Legal Medicine, M. LAGRÈNE DE LA CHARRIÈRE gave it as his opinion that a man who sells his practice has no right to communicate details as to the past medical history of his clients, because they may choose to go to some other medical man than the purchaser of the practice. M. ROCHER said that French law did not recognize the sale of practices. *A fortiori*, then, a medical man had no right to hand over to his successor details of patients without their consent. He agreed with M. DANET that the documents should be burned. M. BROUARDEL protested against his view, for, if whenever a practitioner died all his notes were to be destroyed, great injury would be done to the patients themselves, and science would be deprived of a very valuable mine of collected knowledge. The matter was in the end remitted to a special committee, on the motion of M. BROUARDEL.

THERAPEUTICS & PHARMACOLOGY.**Indications for Venesection.**

M. A. ROBIN said that the result of the withdrawal of blood upon nutrition and metabolism must be considered, as well as the mechanical and antitoxic effects of venesection. Researches carried on by the author for years had satisfied him that after bleeding from 150 to 250 grammes (roughly $\frac{1}{4}$ to $\frac{3}{4}$ ounces) in cases of pneumonia, cardiac trouble and uræmia, polyuria was a regular sequence, while the ratio of solids, *e. g.* urea, phosphoric acid and nitrogen, was increased. Pulmonary ventilation was also increased, the increase amounting in one case to 61 per cent. The oxygen used by the tissues was also increased. Similar but less marked changes were also to be seen after hæmorrhage, whether physiological, as in menstruation, or pathological, as in epistaxis, etc. M. ROBIN considered venesection an excellent means to increase cellular oxidation, and that it was indicated whenever nutrition was interfered with by inadequate oxidation, and not by excessive dissimilation.

Treatment of Fever.

In response to the question, Should Fever be Treated? Dr. STOKVIS, of Amsterdam, said that in some cases it was impossible not to interfere. Such, for instance, as when the patient was in danger of collapse from alarming conditions arising from the heart, respiratory organs or nervous system. As to the mode of intervention, Dr. STOKVIS thought the attempt to reduce fever by antipyretics a great mistake, and that hydropathetics and analeptics should alone be had recourse to, although medicines might occasionally be profitably employed to ward off impending collapse. This was the case in those diseases in which specific medication was possible, as in them the disease itself, as well as the pyrexia, could be combated. Except in malarial disease, however, and acute rheumatism, specific medication was not yet possible. Dr. STOKVIS, therefore, considered that nursing, rather than the treatment of fever, was necessary in most cases, and that diet and regimen, rather than drugs, were needed in such diseases.

Some Statements concerning Calomel.

THE new Italian journal, the *Practica del medico*, says:—That the fact that certain erroneous notions about calomel, especially its incompatibility with other drugs and the danger of its transformation into corrosive sublimate, are widely entertained, has led it to make the following statements:—(1) Calomel cannot be changed into corrosive sublimate in the short time for which it remains in the alimentary canal; it is a very stable salt, and only small quantities are transformed into soluble aluminates. (2) Purgative doses are quickly eliminated with the feces, while small fractional doses remain in the intestine for a long time, and, being changed into soluble salts, may be absorbed; this is the reason why calomel in small and repeated doses is more dangerous than in a single large dose. (3) Substances which contain sodium chloride are not incompatible with calomel; those containing hydrocyanic acid (such as cherry-laurel water and emulsion of bitter almonds) are incompatible with it, because they lead to the formation of mercury cyanide, which is very soluble and rapidly absorbed. (4) It is dangerous to administer calomel which has been for a long time mixed with powdered sugar. (5) Calomel should be kept in opaque and well-stoppered bottles, for under the influence of light and air it partially decomposes. (6) Calomel should be in the form of an amorphous powder, fine to the touch, and of uniform whiteness.

Chrysarobin in the Treatment of Hemorrhoids.

POUNNE (cited in the *Journal des praticiens*), who has employed chrysarobin successfully in the local treatment of hemorrhoids, gives the following formulæ:—

R	Chrysarobin ...	...	1 grain.
	Iodoform ...	...	0.08 "
	Extract of belladonna ...	...	0.015 "
	Cacao butter ...	...	30 "
M.	Make a suppository.	Two or three such suppositories to be used daily.	
R	Chrysarobin ...	...	22 grains.
	Iodoform ...	...	8 "
	Extract of belladonna ...	...	15 "
	Vaseline ...	...	6 drachms.
M.	Make an ointment.		

Correspondence.**MEDICAL REGISTRATION FOR INDIA.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—In these days of fraud practised by quack practitioners under the cloak of bogus American M.D. degrees, medical registration seems to be the only safeguard and the only protection of society. This is a subject in which every physician should be interested, both as a physician and as a citizen. As a citizen, because the laws governing the right to practice medicine are essential for the protection of society; as a physician, because, without the protection of proper laws, men of attainments in this branch of science are put upon a level with fraud and charlatans.

Whenever restrictive registration has been attempted in this country, immediately the cry of monopoly has been raised, and so effectively, that for many years legislation was delayed. The matter of medical legislation is therefore a delicate one from a professional standpoint. Dr. MYERS, in his address before the "Mississippi Valley Medical Association," remarked that "there is a feeling in the community and on the part of legislators that in some way the medical profession wishes to put a fence around the practice of medicine in order that those who are in the inside may fatten." It is persistently charged that we want to create a medical oligarchy, to which only a few shall be eligible, and that we desire to limit the number of medical men, so that we alone may occupy the chosen field. These charges emanate chiefly from those whose interests are identical with the diploma mills and the various forms of quackery. The profession urges medical legislation, not from selfish and interested motives, but in the interest of the public health. Those who pose as practitioners of the healing art should be in effect what they claim—masters of medical science. It is the duty of Government to ascertain the qualifications of medical men who pose as medical practitioners in the city and in the mofussil. So far as we are personally concerned, we attach little or no value to medical registration, because they are not necessary for our protection, but we are anxious for the protection of the public.

It cannot be denied that legislation cannot educate people to the necessity of recognising those who have ability and those who have not. It is for this very reason that registration is necessary. You cannot make people honest or moral, therefore laws are necessary to punish theft and protect the community from immorality. And although you cannot by law enact as to what physician, or what class of physicians, or what means of skill, medical or otherwise, people may choose to employ for the cure of their ailments, it is right and proper that registration should be passed, protecting the community from the deplorable consequences of ignorance in all matters pertaining to the cure of the sick. We are no advocates for any undue interference with the personal liberty of the individual adult in full possession of his faculties to get his treatment in disease done for him anywhere and by any method that pleases him, but we want to guard him only against the pestiferous and unscrupulous

charlatany and malpractice. The misunderstanding and the erroneous impression that exist among some of our educated countrymen, that quacks are of some use, at least in the far mofussil, have been weighed in the balance and found wanting. The misunderstanding has rather proved to be the bane of human species, not only in this country, but in all parts of the world. Every man, woman or child has a right to protection from the vagaries of fanatic, quacks and impostors. Mr. Justice FIELD, of the Supreme Court of the United States, in delivering judgment in a case, remarked:—The power of the State to provide for the general welfare of its people authorizes it to prescribe all such regulations as in its judgment will secure, or tend to secure, them against the consequences of ignorance and incapacity, as well as of deception and fraud. Few professions require more careful preparation by one who seeks to enter it than medicine. It has to deal with all those subtle and mysterious influences upon which health and life depend, and requires not only a knowledge of the properties of vegetable and mineral substances, but of the human body in all its complicated parts, and their relation to each other, as well as their influences on the mind. The physician must be able to detect readily the presence of disease, and prescribe appropriate remedies for its removal. Every one may have occasion to consult him, but comparatively few can judge of the qualifications of learning and skill which he possesses. Reliance must be placed upon the assurance given by his license, issued by an authority competent to judge in that respect, that he possesses the requisite qualifications. Due consideration, therefore, for the protection of society may well induce the State to exclude from practice those who have not such a license, or who are found upon examination not to be fully qualified. No one has a right to practice medicine without having the necessary qualifications of learning and skill, and the statutes only require that whoever assumes by offering to the community his services as a physician, that he possesses such learning and skill, shall prevent evidence of it by a certificate or license from a body designated by the State as competent to judge of his qualifications."

Yours, &c.,

HURRO NATH ROY, L.M.S.

ASSISTANT SURGEONS AND THE I. M. S.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—*The Tribune* of Lahore says:—

An evidently inspired paragraph, put into circulation by some of the Anglo-Indian dailies, has caused a flutter of excitement and expectation in the circle of Indian private practitioners and Assistant Surgeons, not unmixed with displeasure in certain quarters. The paragraph is to the effect that in order to relieve the extra strain put on the Indian Medical Service on account of famine, plague and war, Government has decided to employ 20 private medical practitioners for a certain period, reserving to itself the power to terminate the agreement on one month's notice. The pay offered is Rs. 600 a month for those holding the diploma of Public Health

of some British University, and Rs. 500 for Associates of Home medical institutions not so qualified. "A few openings," it is added, "may also not improbably be found for retired Military Assistant Surgeons holding the necessary diplomas." It is not given out as yet whether the new hands will be put on military or on civil duties, but the probabilities are that they will be made to fill vacancies at civil stations. The proposed arrangement is a good idea in so far that it promises a chance to other qualified medical men in India for showing their capacity for public medical work than the favoured members of the I. M. S., but three questions naturally suggest themselves:—(1) Why is the selection to be restricted to diploma-holders of British Universities and medical institutions? (2) Why are the claims of *Civil Assistant Surgeons* (the majority of whom are of course natives of India) left out of consideration? (3) Why not fill the vacancies by holding a competitive examination open to all medical graduates practising or employed in the Subordinate Medical Service in India? A natural corollary to the third question is—(4) Why not hold the competitive examinations for the Indian Medical Service simultaneously in England and India, and thus stop the growing difficulty of finding a good supply of qualified men for the higher grades of the Medical Service?

It is one of the few things, admitted by even the enemies of the educated Indian, that the graduates of the Indian Medical Colleges are as well educated as the best of the medical diploma-holders of England, and that an Indian M. B. or M. D. has received a superior training and passed more difficult tests than holders of British licenses, such as the L.R.C.P., L.R.C.S., L.S.A., &c. Indeed, with perhaps the simple exception of the London University, no other medical examining Board in the United Kingdom requires a higher degree of discipline and training for obtaining its diplomas than the Medical Colleges of India, and, compared with the majority of the former, the standard of tests fixed by the latter is decidedly more difficult. The tendency is to make the conditions of training, as well as of passing, stiffer and stiffer in the Indian Medical Colleges generally, and to allow as few to graduate as possible. Why not then give such of the men as survive the hard process and get their diploma after all a chance to compete for the higher appointments in the public Medical Service and show their capacity in other ways? It is admitted that the resources of the I. M. S. have been taxed to the utmost of late, and that the attractions of the service having lessened in many respects, a supply of first-class candidates is not available for the competitive examinations in London. Alike in the interests of the service, therefore, as well as in justice to the Indian Medical Colleges, the higher appointments, at least in the Civil Department of the Medical Service, should be thrown open to Indian competition by simultaneous examinations being held in England and India. There is a hue and cry after "bogus M. Ds." in which the Government of India has taken part, but what adequate reward has Government in prospect for those who qualify for medical degrees in India under the hard conditions referred to above? A respectable proportion of the American diploma-holders

in India are men who have had the full course of training in one or other of the Government Medical Colleges, and have been prevented from graduating simply by the difficult conditions of the examinations. And if the authorities go on stiffening the tests on the one hand, while on the other hand they limit the field of suitable employment for those who graduate even under such hard conditions, they indirectly create an inducement for getting the foreign degrees over which they profess to be so very indignant.

Yours, etc.,
PANJABI.

OFFENSIVE AND DANGEROUS TRADES: DANGER FROM "DHOBIES."

TO THE "EDITOR, INDIAN MEDICAL RECORD."

Sir,—The remarks which follow are a digest of an article from the *Indian Municipal Journal*:—Section 188 of the Madras District Municipalities Act of 1884 provides for the issue of licenses for offensive and dangerous trades. In many of the mofussil municipalities, no doubt, licenses are given under this section, collecting a certain fee for each license. After obtaining the license, the licensees carry on their trade, in a don't-care fashion, according to their own free will and pleasure, though the result may be one rendering the surrounding atmosphere foul, making the soil filthy, producing unwholesome articles of food, or contaminating any neighbouring source of water-supply, or may be the pukka means of spreading any virulent epidemic. The Municipal Executive are very careful in collecting the required fee for all the licensed places where offensive and dangerous trades are carried on, but, on the other hand, they generally ignore the fact that Section 188 is introduced solely for the health and safety of the public. It has been repeatedly pointed out by the Sanitary Commissioner for Madras that all licenses issued under Section 188 should bear upon the back a statement of sanitary conditions requisite to be satisfied by the licensees before and after issuing the license. In its order No. 757 M., dated 26th May 1899, the Government plainly says: "It should be always borne in mind that the system of licensing certain trades, provided for under the Act, has in view the enforcement of sanitary rules, and not the collection of revenue." It is, therefore, necessary that every license given for any offensive and dangerous trade should bear certain sanitary conditions to be satisfied by the licensees.

For instance, let the trade of a dhobie (washerman) be taken into consideration. A dhobie collects the soiled clothes from his customers' houses, heaps them all together, and stores them in his house, side by side, with the already washed ones. Clothes of patients suffering from any infectious disease are also collected without being previously disinfected, and are heaped together with those of the others that are free from any disease. Thus the disease is introduced first among the members of the dhobie's family, who then become the centre for the spread of the disease.

The connection of cholera, small-pox, plague or such between a dhobie and his customers can be traced, infection being due to the customers sending clothes to the dhobie without washing or disinfection. He takes all the soiled clothes together to the washing place, and

there washes the same in shallow pools of stagnant and filthy water situated in an out-of-the-way corner of the town. This water is used by many who resort to the neighbouring fields or plains to answer calls of nature, or for the performance of ablution. In such a pool of water the dhobie washes the clothes of his customers. The stone on which the clothing is beaten is not far away from the pool, but is kept on the bund of the pool, so that the washed-water may again enter into the pool, and thus cause no diminution in the quantity of the pool-water. Such washed clothes are then dried on the surface of any adjoining field or plain filled with the refuse of decomposing defæcations. This is the way how the dhobie of this presidency deals with the clothes of his customers. Imagine what imminent danger there lies in this trade! Is not, then, the calling of dhobies one that immediately concerns the public health, and so is it not necessary that such a trade should be carefully watched by the Municipalities which are the custodians of the health of their rate-payers?

Now to prevent this evil, the best remedy is for the municipality to have a check on the dhobies by constructing a public dhobie-khana and by hiring dhobies for washing the clothes of the public, from whom a certain fee may be collected by the municipality to meet the cost of payment to the dhobies. If this is impracticable, another remedy is to compel the dhobies to store and wash the clothes only in the public dhobie-khana constructed by the municipality or only in the place selected by the municipality from a sanitary point of view. If the latter also is impracticable, on account of want of funds, which is the usual cry in all the municipalities, a third remedy is to fix certain sanitary conditions to be observed and satisfied by the dhobies, who should be legally compelled to take out the municipal license either with fee or without fee, according to the circumstances of the dhobies. When the dhobies are obliged to take out a license, there comes the fear of strike among them. Of course an obstacle precedes a good thing. How to overcome this difficulty is a question which approaches the purse of the municipality to a little extent. If some other men are employed, on a certain monthly pay, for a certain period, and the clothes of the public are washed by these men, while enforcing the legal penal provisions over the ringleaders of those that struck work, it is certain that, within a short time, the dhobies will be brought to the point. The following conditions may be fixed to be observed or followed by each licensed dhobie:—

(1) The dwelling rooms of dhobies shall not be also the places for the storage of clothing.

(2) There shall be two separate rooms or places so as to keep soiled clothes in one and the washed ones in the other.

(3) Walls of the premises shall be whitewashed, both internally and externally, once in six months.

(4) Each licensed dhobie shall keep a list showing the names and residence of his customers, and this list shall be produced whenever he is called on to do so.

(5) The soiled clothes of each family shall be well boiled or subjected to the process of steam before being mixed with those of the rest.

(6) No clothing of patients affected by cholera, small-pox, plague, or any contagious disease shall be taken by a dhobie unless it is previously disinfected by the municipal authority.

(7) The clothes shall not be washed in filthy water, or dried in any filthy place.

(8) The stones on which clothing is beaten shall be at a distance of 30 yards or more from the water source to prevent the washings entering into the same.

(9) The tank, pond, pool, or well used by a licensed dhobie shall be protected all round to prevent the surface washings entering into the same.

(10) No person suffering from any infectious disease, or being in contact with the persons so suffering, shall wash or in any way come in contact with the clothes.

Yours, &c.,

INDIAN SANITARIAN.

COMPLAINTS OF HOSPITAL ASSISTANTS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I am desirous of bringing to your kind notice certain complaints of the Civil Hospital Assistants who served in the recent famine in the districts of the Punjab, in the hope that the grievances narrated will catch the eye of a responsible official who will deign to assist us. It is undoubted that the Civil Hospital Assistants as a class supply a real want, and their services are perhaps more meanly remunerated than any other similarly situated class in any other department under Government. Whenever an attempt is made to better their position by a memorial, either no heed is given to their prayer, or they are told that there is a want of funds, caused by famine or plague. It is difficult to see how, under these circumstances, Government can expect the right sort of men to enter this department. Take for instance the treatment meted out to us in the recent famine relief works, with special reference to the Hissar district. Girdawar Quanoongos and Hospital Assistants were employed on these works from the civil and medical departments—both generally draw equal salaries in their respective grades; but here Hospital Assistants were granted a famine allowance of Rs. 5 only, not solely for the extra hardship endured, but also as a compensation for any loss of income by private practice, whereas Girdawars were paid Rs. 50 instead of Rs. 25 as salary, with an allowance of Rs. 15 to Rs. 20 per month, at a time when there was a scarcity of money in the Government Treasury. The duties of Hospital Assistants at these works were: (1) Daily inspection of the sanitary condition of the camp. (2) Distribution of medicines to different gangs at different places. (3) Dressing of in-door and out-door patients. (4) Distribution of medicines to in-door and out-door patients at the dispensary. (5) Distribution of special diets to the adults and weak children, numbering not less than 150, twice a day. (6) Negotiations for the diet with the *bania* and the *lumbardar*. (7) Inspection of small-pox hospital and cholera camp at a distance of about a mile away. These duties

had to be performed in a camp with 10,000 souls, and all without the help of a compounder. I need scarcely say more.

Yours, &c.,
A SUFFERER.

24th January 1901.

ON CIVIL ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I see "TOMTIT, M.B.," has taken the trouble to reply to my remarks anent Civil Assistant Surgeons.

Beyond the remarks I am about to make with reference to his letter in your issue of the 13th instant, I am not going to enter into the subject again. It is pleasing to note that he has taken my first letter in the same kindly spirit in which it was offered. I repeat, that my sympathies in many respects run with the class he advocates, and personally, I should feel pleased if the prospects of the men looked brighter; at the same time it is folly to gloss over the points raised in the manner "TOMTIT, M.B.," has done. Do not blame Professors and the Government: they have done their duty. It is home influence and home bringing up that needs reformation. Any native of moderate means can have his son educated and admitted into the grade of Civil Assistant Surgeon; but that man's home influence and his life are not those of a *gentleman*, such as we understand the term to mean. It is a case of the silken purse and the sow's ear over again.

That there are men in the Civil Assistant Surgeon class fit to take charge of a district I admit; but they are very few, and very far between—I mean not only professionally, but *socially*, and until native lads are so brought up and educated as to be able to take their places in society and to be thoroughly trusted, the Government is wise in not allowing them to be classed with other officers of districts and their wives, and in having them placed under European supervision. This is where the Military Assistant Surgeon has the preference; he is European by birth, bringing up, intelligence, and easily takes his place in European society, and as a military man knows what discipline is and can maintain it.

"TOMTIT, M.B.," is a first-class advocate, but no amount of controversy can change FACTS, and the sooner the native Assistant Surgeons adopt his mode of thought, act in accordance, and reform their social condition of life, the sooner will they attain what he for them is striving to obtain.

His advocacy at present may only lead to further discontent and to prigs assuming injured attitudes.

Yours, &c.,
LIEUT.-COLONEL, I.M.S.

IN FAVOR OF CIVIL ASSISTANT SURGEONS.

I.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The Civil Assistant Surgeons are extremely obliged and grateful to "TOMTIT, M.B.," for his able and exhaustive exposition of their grievances in the correspondence columns of your journal, and are highly amused

by the perusal of the instructive, but unfair, remarks made by an experienced officer of the rank of "Lieut.-Col., I.M.S." They are, however, obliged to "Colonel Sahab" for his kindly pointing out practical hints for their improvement, and undoubtedly these will have a salutary effect if every one of the Civil Assistant Surgeons takes them to heart.

They thank "Tomtit, M.B.," sincerely for his admirable, impressive, and appropriate reply to "Colonel Sahab's" remarks, and hope the latter will gain more "experience" by its perusal, and will not be sorry for what he wrote in an unguarded moment.

Yours, etc.,

AN ASSISTANT SURGEON.

II.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I and many of my grade are very sorry to find the defence made on our behalf by "Tomtit, M. B. No doubt he thinks he is doing us good, but we feel he is injuring us. He does not express our views: those of us in the service of Government are quite content to fight our own cause in the proper way, and to abide by orders laid down for us. That there is much room for improvement in our positions, we plead but time, and time alone will lead to better results than those we have already obtained. We are not lowered by being placed under the orders of Civil Surgeons who are of the Military Assistant Surgeons class, and instead of some of them having to "sit at our feet for years," there is much that we learn from them, as, as a rule, they are officers of fifteen or twenty years' civil experience and practice; and those of us serving under them never have reason to complain of their treatment to us. They are gentlemanly and kind, and give us more than we ever get from I. M. S. officers. "Tomtit, M. B.'s" defence of us as a class is *not required*, and we hope that he will refrain from advocating our so-called grievances."

Yours, &c.,

L. M. S., CIVIL ASSISTANT SURGEON.

USE OF SUPRARENAL CAPSULE IN HEART DISEASE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I intend to publish a second paper on the use of the suprarenal capsule in organic heart disease.* Will you kindly ask the readers of your journal to send me the reports of their cases as follows:—

I. The condition of the heart and pulse, and also the pulse rate.

II. The effect on the heart and pulse, and also the pulse rate, within ten minutes after the suprarenal powder, three grains, is chewed and swallowed without water by the patient.

Yours, &c.,

SAMUEL FLOERSHEIM, M.D.

218, EAST 46TH STREET, NEW YORK CITY, U. S. A.;

18th January 1901.

* For first paper, see *New York Medical Journal*, 6th October 1900, pages 881-88.

MEDICAL TRADE NOTICE.

VIBRONA DATE-CASES.

Messrs. Fletcher, Fletcher & Co. (Limited), Holloway, N., have sent us specimens of two date-cases which they are issuing. One of them is made to hang, and has a pocket for loose papers and a multiple-tablet for memoranda at the side of the monthly calendar. This case is sent on application to chemists who are doing a good business in Vibrona. The other case is for standing upon the writing-table, and has been specially got up for medical men. Each month's calendar is printed on a double sheet of art-paper, and each of these bears a midget reproduction of a "Vibrona Art-series" picture with particulars about the series. The cases are good, and are a pleasing compliment to Vibrona, which is making steady headway with the profession and the public as a reliable tonic-wine that does not encourage secret tipping.

Government Medical Gazettes.

BOMBAY.

The undermentioned lads are admitted into the Grant Med. Col., Bombay, as Milly. Pupils:—

William Earnest Cody; Frederick Osmond Wade; Edward Demosthenes Lobo; Grant Ruth Atkins; Alexander Leslie Hudson; Roland William Christopher McEvoy; Clarence Archibald Wells; Charles Bernard O'Brien; Herbert De-Penning; Louis Duckworth Ruth Atkins; Harold Augustus Young; Arthur William Hazel; Henry Blessington Vincent; Dermot Edwin Lawrence.

The services of the undermentioned Hosp. Assts. are tempy. lent to this Presy. under the orders of the Govt. of India for famine duty and travelling dyspepsia, and are placed under the orders of the San'y. Commer. for the Govt. of Bombay:—

Sadaswim Pillay; Mohamed Abdul Aziz; Romesh Chandra Ghosh; T. Appanba Naidu; Ekbal Hussein; Amritlal Bannerji; Rooh Behari Sen Gupta; Shahadul Hug; Devendro Kumar Bose; Babu Sitapati Chaturji; Nimai Charan De; Hari Charan Sil; Bhagat Prasad Ghose.

The undermentioned Hosp. Assts. belonging to the Milly. Dept. (tempy. lent to the Civil Dept.) have reverted to Milly. duty and reported their departure on the dates mentioned opposite their names:—

Bengal Presidency.

Senior Hosp. Asst. Kataru Ram, 24th Sept. 1900; Lashkari Parshad, 7th Aug. 1900.

First Grade Hosp. Assts. Alah Banda, 20th July 1900; Natthu Mal, 21st July 1900.

Second Grade Hosp. Asst. Mansingh, 21st Sept. 1900.

Third Grade Hosp. Asst. Tarachand, 22nd Sept. 1900; Hira Nand, 22nd Sept. 1900.

Bombay Presidency.

First Grade Hosp. Asst. Lingra Bajana, 24th Sept. 1900.

Second year native Milly. Pupil Gangaram Viaram, Byramji Jijibhoy Med. School, Ahmedabad, is dismissed from the school.

The undermentioned Hosp. Assts. were relieved from famine duty under the orders of the Sany. Commr. for the Govt. of Bombay and directed to proceed to Cuttack, travelling under the usual conditions, and, on arrival, to report themselves to the Supdt., Med. School, Cuttack. They reported their departure on the date mentioned against their names :—

Ramchandra Ghosal, 12th Nov. 1900; Keshori Mohun Mojumdar, 12th Nov. 1900; Radha Mohun Chakravarty, 6th Nov. 1900; Bamesh Chandra Ghosh, 6th Nov. 1900.

CENTRAL PROVINCES.

Civil Hosp. Asst. Konj Behari Lal, attached to the Brahmapuri Branch Dispy., Chanda Dist., held ch. of the famine relief kitchen at that stn., in addn. to his own duties, from the 10th June to the 28th Nov. 1900.

Civil Hosp. Asst. Pranaukh, attached to the Warora Branch Dispy. in the Chanda Dist., held ch. of the relief kitchen at that stn., in addn. to his own duties, from the 9th June to the 1st Dec. 1900.

Civil Hosp. Asst. G. Ramaiya Naidu, who was in ch. of the Venkatapur Branch Dispy. in the Chanda Dist. held ch. of the relief kitchen at that stn., in addn. to his own duties, from the 4th April to the 31st May 1900.

Civil Hosp. Asst. G. Ramaiya Naidu, attached to the Stroncha Branch Dispy. in the Chanda Dist., held addnl. ch. of the relief kitchen at that stn. from the 8th June to the 31st Oct. 1900.

Civil Hosp. Asst. Saiyid Sallar, attached to the Venkatapur Branch Dispy. in the Chanda Dist., held addnl. ch. of the relief kitchen at that stn. from the 31st May to the 31st Oct. 1900.

Civil Hosp. Asst. Vasudeo Ganesh, attached to the Allapilli Branch Dispy. in the Chanda Dist., held ch. of the relief kitchen at that stn., in addn. to his own duties, from the 25th Nov. 1899 to the 28th Oct. 1900.

Civil Hosp. Asst. Baliram Dadaji Deo, attached to the Pandaria Branch Dispy. in the Bilaspur Dist., is granted two months' privilege leave, from the date on which he is permitted to avail himself of it.

Civil Hosp. Asst. Maroti Ramkrishna, on gen. duty at Nagpur, is apptd. to the Pandaria Branch Dispy., Bilaspur Dist., during the absence, on leave, of Baliram Dadaji Deo.

Privilege leave for one month is granted to 2nd Class Civil Hosp. Asst. Balaji Baliram, attached to the Kothi Bazar Branch Dispy., Hoshangabad, from the date he is permitted to avail himself of it.

Leave on med. certificate for one month is granted to Civil Hosp. Asst. Kshirode Kumar Ghose.

Civil Hosp. Asst. Surji Rao, on gen. duty at Nagpur, is granted three months' privilege leave from the 1st Feb. 1901.

Civil Hosp. Asst. Pandurang Lakhshman, doing gen. duty under the orders of the Civil Surgn., Nagpur, is transferred to Betul to take tempy. ch. of the Branch Dispy.

On relief by Civil Hosp. Asst. Pandurang Lakhshman, Civil Hosp. Asst. Ramkrishna Balwant of the Betul Branch Dispy. is granted two months' privilege leave.

Civil Hosp. Asst. Muhammad Inamullah, on gen. duty in the Saugor Dist., is directed to hold tempy. ch. of the Multai Branch Dispy. in the Betul Dist.

Privilege leave for three months is granted to 3rd Class Civil Hosp. Asst. Jaiiram Bhan Sonwalkar, in ch. of the Multai Branch Dispy., from the date he is relieved by Civil Hosp. Asst. Muhammad Inamullah.

Private Hosp. Asst. Upendra Chandra Sirkar was employed on famine duty in the Civil Dept. in the Chanda Dist. from the 21st Oct. to the 5th Nov. 1900.

Six months, leave without pay is granted to 2nd Class Civil Hosp. Asst. Abdul Karim, attached to the Balhar Branch Dispy. in the Balaghat Dist., from the 9th Oct. 1900.

Civil Hosp. Asst. Anandram Nandra, on gen. duty at Raipur, is granted one month's privilege leave from the 5th Feb. 1901.

MADRAS.

The services of the undermentioned offrs. are replaced at the disposal of the Government of Madras :—

Capt. W. C. Vickers, M.B., I.M.S. (Madras).

Capt. C. B. Harrison, M.B., I.M.S. (Madras).

Major Robert Robertson, I. M. S., to be Surgn, Second Dist. and Supdt., Voluntary Venereal Hosp., Madras, *sub. proutem*, from the 28th Dec. 1900.

Capt. Wilfred Constant Vickers, M.B., I. M. S., to act as Dist. Med. and Sany. Offr. with med. ch. of Central Jail, Coimbatore, during the employment of Major D. Simpson, I. M. S., on other duty.

M. R. By. Pondicherry David Savarinatha Amirthasami Pillai Avargal to act as Civil Surgn., Tellicherry, during the employment of Major R. Robertson, I. M. S., on other duty.

Capt. C. Donovan, I.M.S., privilege leave for three months, from or after the 1st March 1901, Civil Service Regulations, and furlough on med. certificate for nine months under article 340 (a), Civil Service Regulations.

Lieut.-Col. William Alexander Lee, I. M. S., to act as Dist. Med. and Sany. Offr. with med. ch. of Central Jail, Trichinopoly, during the employment of Lieut.-Col. W. F. Thomas, I.M.S.

BURMA.

Hosp. Asst. Gajan Singh, on return from leave, assumed ch. of his duties with the Mily. Police detachment proceeding from Thazi, Meiktila dist., on the 19th Dec. 1900.

Hosp. Asst. Gajan Singh relinquished ch. of his duties with the Mily. Police detachment at Taunggyi, Southern Shan States, on the 31st Dec. 1900, and assumed ch. of his duties at the Civil Hosp., Taunggyi, Southern Shan States, on the 31st Dec. 1900 as a supey.

Hosp. Asst. Gajan Singh relinquished ch. at the Civil Hosp., Taunggyi, Southern Shan States, and assumed ch. at the Civil Dispy., Thamekhan, Southern Shan States, on the 5th Jan. 1901.

Hosp. Asst. Gajan Singh assumed ch. of additional duties at the Police Hosp., Thamekhan, Southern Shan States, on the 5th Jan. 1901.

NOTICES TO CORRESPONDENTS.

"John Brown."—Your letter received; contents noted. M. Ostermayer & Co. (Bombay).—The parcel has not been delivered to this office by the railway authorities.

J. M. P. (Aden).—Your papers have been forwarded to the authorities.

Col., I. M. S.—We are bound to give "Tomtit, M.B." the fullest opportunity to reply to your strictures. We consider that he has written well and temperately.

F. H. A. (Bander).—The case you write about is a distressing one. Seek advice nearer home. We cannot advise you in such a case without seeing your patient.

A. B. C. (Hyderabad).—Gat Parkes' and Haswood's work on "Hygiene and Public Health."

ORIGINAL ARTICLES.

THE SURGICAL TECHNIQUE AND OPERATIVE
TREATMENT OF ELEPHANTIASIS OF THE
GENERATIVE ORGANS BASED ON A
SERIES OF ONE HUNDRED AND
FORTY CONSECUTIVE
SUCCESSFUL
CASES.

BY MAJOR R. HAVELOCK CHARLES, M.D., M.CH., F.R.C.S., I.,
Indian Medical Service.

*Professor of Surgical and Descriptive Anatomy and
Clinical Surgery. Surgeon, Medical College
Hospital, Calcutta.*

It is possible that to some, certain of the points touched on may seem unnecessary and self-evident; but, as this is written for Surgeons, both European and Indian, commencing the operative treatment of the disease, I have thought 't best to be clear at the risk of being verbose. My experience as a teacher for many years has shown me that senior students, and those beginning practice, more often fail in attention to detail than in the greater things necessary! "*Haud ignara mali miseris succurrere disco.*"

In January 1897, I read before the Calcutta Medical Society a paper on "A New Method of Operating in Elephantiasis Scroti," publishing then the results of a series of 60 consecutive successful cases. Since then I have operated on a further series of 80, thus completing 140 consecutive cases without a death.

This more extended experience has led me to modify certain of my original methods, and, as I have received letters from various Surgeons interested in such operations, asking for details, I venture now to bring the subject again before the profession.

The operation being one of expediency, necessitates the most scrupulous attention and care to technique and treatment, as a fatal result is more to be deprecated than in conditions of surgical emergency.

THE CHARACTER AND CONDITION OF THE PATIENTS
that have come to me for relief have differed much.

In age they have varied from 16—62 years. Some had health in good store: in others the shattered frames, worn with digestive troubles, showed livers and spleens enlarged from malarial cachexia. In appearance the pendulum has swung from the emaciated famine type to the individual with pendulous belly and elephantine gait.

The lymphatic glands in the inguinal and femoral regions were very frequently enlarged, though examples of the spongy condition were rare—solid hypertrophy being the rule.

Hernia complicated the operation in instances. In one interesting case it was of the irreducible variety, and from it over a pound of omentum was removed. Several of the patients had also elephantiasis of the arms or legs, and some of both.

The following are the

ORDINARY FORMS OF THE DISEASE AS MET WITH.

(a) The hard and solid type of elephantiasis is shown in photo. No. 8.

(b) The mixed type—hard, but not solid, as it contained two hydroceles; is shown in photo. No. 11.

(c) Very large hydroceles with thickening of the lower part is shown in photo. No. 10.

(d) Elephantiasis affecting merely the coverings of the penis is shown in photo. No. 9. The scrotum was healthy in this.

THE GENERAL PREPARATION OF THE PATIENT FOR THE OPERATION.

From what has been noted about the great variety of patients coming for treatment, it will be understood that the preparation of the case is of the first importance, if a successful issue be ever regarded as the *sine quâ non*.

The routine pursued by me is that the individual first has a hot bath, and is provided with a comfortable bed with plenty of warm clothing. Especial attention is then directed to calming the mind of the restless, excited and nervous. Removal of causes of worry, fear or anxiety I reckon as of great use, hence such a patient is placed near or with others that have been operated on. This explains to such the unknown, and gains the confidence of the afflicted one. The appetite is studied, and food, as may be judicious, is given—the nurse being instructed to see how the food is eaten. Concurrently the microscopic investigation of the blood is being prosecuted for *filaria*, and the usual examination of the urine and stools is carried out. In the bloated and obese the abdominal plethora is combated; and in the emaciated and cachectic, anæmia, fever and spleen are corrected.

THE LOCAL PREPARATION.

A daily hot hip-bath, and a thorough inunction of the parts, which have been shaved, with a creamy lather of coal-tar soap, improves the nutrition of the tissues—œdema hardness and irritation of the skin adjacent subsiding.

When eczema or ringworm, which are common complications, are present, lin. iodi, or ichthyol, brings about a cure.

SPECIAL PREPARATION FOR THE OPERATION.

Having determined that the patient is in the best condition possible under the circumstances for the operation—

On the day previous

a purgative is given in the morning, followed by a good enema at night. The parts being re-shaven, are washed with 1—20 carbolic lotion and a lather of carbolic soap (20%); then rubbed with turpentine, and again washed with perchloride lotion (1—1500). Lastly, a dressing of perchloride gauze, wrung out of 1—20 carbolic lotion, being applied, is confined with a bandage.

On the Morning of the Operation

the parts are again washed, and the routine of the day previous repeated.

The patient is then carried in his bed to the operating room, due attention being paid to the avoidance of

chill. When he is placed on the operation-table he is clothed in a flannel shirt, with long stockings on his legs, and he lies on a thick blanket which extends from his sacrum to his neck.

Position of the Patient.

The patient occupies the lithotomy position at the end of the table. The assistants hold him in such a way that the thighs can be abducted or adducted; or the pelvis tilted up as required according to the various stages of the operation. (Assistant to right of patient grasps the inside of patient's knee with his left hand, and the dorsum of the foot with his right hand—the knee is well flexed and the foot well abducted. The assistant to the left of the patient grasps the knee with his right hand and the foot with his left hand.)

Intelligent assistants, holding a patient well, greatly facilitate the steps of the operation. With efficient aid there is thorough control, and it is possible to avoid every source of soiling or contamination of the field of operation—so essential if the wound is to run an aseptic course.

I consider this position is superior to having the patient supine on a table: it not being possible, in the latter, to be as sure of continued surgical cleanliness during the lengthy period of the operation, and, more especially, the satisfactory making of the flaps in the supine position is less easy.

It may seem absurd in my drawing so much attention to keeping the patient's back warm; but experience has taught me, in these days of glass operating tables and other fal-lals of surgical millinery, that the subject of the operation is frequently given credit for greater powers of endurance than the results sometimes justify. A temporary congestion of the viscera of a man, from lying with his back improperly protected on a cold table for an hour, will turn the scale against him should his life be in the balance from innate debility, operative shock, or other complication.

A percentage of the mortality in this surgical procedure, I am convinced, is due to some neglect of ordinary guiding principles.

THE OPERATION.

The Rubber Tourniquet.

In most of my cases I have used the rubber cord— $\frac{1}{4}$ " thickness—applied in the manner shown in photos. Nos. 1 and 2, which, better than letter-press, illustrate its application.

Latterly I have not employed any such appliance, but proceeded with the incisions, picking up the vessels before cutting or immediately afterwards.

The advantages of the rubber-cord are that—

1. When the operator meets with these cases at first, it gives him confidence to know that the circulation is under control.
2. Less blood is undoubtedly lost at the early part of the operation, so in cases where a few ounces of the fluid may be of vital importance, it is advisable to use the tourniquets.

Its disadvantages are that—

1. When the mass of the tumor, on the neck of which it rests, has been cut away, the cord may slip over the wound and introduce elements of septic danger.

2. If it can be done without, the operation is simplified.

3. Its removal subsequently requires care to prevent the ends touching the recent wound, and the operator soils his hands if he carries out the unwinding himself—an untrained assistant will probably make a muddle of the simple act! *Experientia credat.*

4. Of much more importance is the fact that the "weeping" from the large surface is less and the blood stasis more perfect if the cord be not used. The wound can be closed without delay, saving valuable time, so that the patient is got comparatively soon off the table into his bed.

Let the Surgeon, who has fingers and only one thumb on each hand, get rid of an inordinate fear of blood, operate quickly, *without hurry*, bear in mind where the vessels are to be found, and, with the exceptions noted, he will relegate the cord to the limbo of obscurity, to be used by those who still have, metaphorically speaking, to cut their surgical teeth.

The Assistants.

In addition to the two holding the patient, and one in charge of the irrigator, another, with clean hands, is all that is required. I prefer also he should bear in mind that "they also serve who only stand and wait." The operator must learn to carry out his work without assistants—having placed his instruments conveniently to his hand, he should do everything without dependence on those standing round, carrying on his duties "*cito, tuto, et jocunde.*" The fourth aide will hold the penis when told, or steady the mass of the tumor, or catch a forceps; but the only hands in the wound are the operator's.

Incisions.

The first I make is in the median line from near the pubis to the preputial mouth. This is deepened to the dorsum of the penis, and the finger is run up and down on either side of its body, very effectually enucleating the organ from the suspensory ligament to its free extremity, where the glans is still separated from the finger by the lining membrane of the prepuce. Pull the head of the penis up and out through this cap of mucous membrane in front of the glans which is palpable with ease through it. The organ is now free with its head covered, as it were, with a night-cap: slit this up, being careful to hold it away from the wound to avoid douching the old retained smegma preputii into the raw surface. Clean well, wrap round with a little gauze and leave for the present. Ordinary care up to now has prevented any injury to the dorsal vein, and there has not even been a chance of slitting up the penis, as some have done, in the old method of decorticating, on a long-handled director, pushed in by the preputial orifice, which, by mistake, has got into the urethra instead of arriving at the corona glandis.

Now pull the mass to patient's right (exposing the left side of the neck of the tumour). Cut from above

near external abdominal ring, carving towards the median line in front of the anus. This incision is on the neck of the tumour, at the scrotal angle, and will vary in position, inwards or outwards, according to the state of health of the skin—bearing in mind that this must ever be soft and pliable, that the subcutaneous fat on exposure must have the ordinary healthy yellow appearance, with no tendency to an œdematous or blubbery look. The trunks of the vessels will be found running obliquely inwards at the upper angle, transversely inwards at the middle part, and will have an antero-posterior direction behind. They can be seized before section, or after cutting, with pressure forceps.

Deepen this incision gradually and work in with finger and scalpel to near the bulb, avoiding any hurt to it.

Repeat the same procedure on the right side of the neck of the tumor. The two incisions will have met in front of the anus, and all the main vessels will have been seized and divided, and the bulb almost cleared on either side.

The next step is the *enucleation of the testicles*. Unite the base of the median incision with the upper end of the lateral cuts on either side, seizing the vessels as previously described. From the centre of, say, the left of these, over the line of the cord, the knife is freely used—making a vertical wound through the substance of the growth, which is deepened till the cord be exposed, then the finger, being inserted, is worked around the cord, and moved up and down, enucleating it and the testicle completely, save at the lowermost end of the gland, where is its firmest attachment, which is the remains of the central part of the gubernaculum testis. This must be cut away with a blunt-pointed scissors, and every trace of blubbery material should be carefully removed at the same time from off the outer surface of the tunica vaginalis.

Repeat over the right cord and testicle the process described.

The firm testicular attachments are shown in photo. 4, which illustrates the condition of the field of operation at this stage of the procedure, but before final separation of the testicles. Should a hydrocele be present, it is removed unopened, it being much easier to dissect out the distended tunica vaginalis than after the escape of the fluid. Then open the hydrocele in front (be careful here, as the testicle is often distorted and transposed). Cut away the tunica vaginalis laterally on either side to near the mesorchium—being specially on your guard above and behind the globus major of the epididymis.

Wrap the testicles and cords in guaze, and place them on the pubes.

Torsion Clamp Method of Blood Skins.

Now twist, to say four turns, each vessel held by a pressure forceps, and, before removing it, with a second forceps, clamp the twisted artery. The clamp action of the second keeps up the twist, and it can be taken off in a few moments. I have absolutely ceased the use of the ligature (save the exceptions noted further on) since taking to this torsion-clamp method. I consider, and experience

has proved to me, that with it the ligature is unnecessary. In such an operation as this, where as many as 40 vessels at times require attention, if two score pieces of outgut can be done without, the success of the procedure will not be endangered by structures, some of which might subsequently play the parts of "foreign bodies" in the economy of the healing process. The above method is used then throughout the whole procedure.

The appearance of the field of operation on the complete removal of the tumor is shown in photo. 5. The large extent of the wound is to be noted, in which the decorticated penis is held aloft with a forceps, and the testes hang low, suspended by the lax cords. The wound is dry—there is no weeping, and no sutures have been used. In fact, instead of the worrying ooze, ooze, that follows the use of the rubber cord, there is the glaze of the healthy plasma.

THE FLAPS.

Now the skin to the right of the wound is to be drawn forwards. Its inner side is lined by the fascia of COLLES, and it is the deep surface of this structure that is exposed. Pulling the skin and fascia taut, with a scalpel, make an incision through the latter $\frac{1}{2}$ " long. Put aside the knife, and entering the finger by this window, move it up and down and out, freeing the skin from its attachments to the fascia lata over the origins of the gracilis and adductor muscles.

The vessels will feel as small fibrous cords passing from the deep parts to the overhanging integument like a series of pillars from a floor to a ceiling. They are not broken by the finger working its dissection through the superficial fascia, although the blood stream in them may be interrupted for a time by their somewhat rough usage—it must be quickly re-established, as I have not yet met with a single case of gangrene of the flaps.

Practice will determine the amount of covering necessary, but the free margin should come to the median line without tension. Snip with blunt-pointed scissors any portion of COLLES's fascia obstructing the sliding in of the flap. Proceed on patient's left side with the same method.

Having done so, take the right testicle. See that there be no oozing from where the tunica vaginalis has been cut away, nor bleeding from any portion of the cord from an injured vein. These are the only parts in the whole operation where a ligature may be found necessary. Place the testicle under the skin flap on the thigh. Repeat the same with the left testicle, and draw the flaps to the median line. A few temporary stitches of silk-worm gut keeps them in position, whilst a continuous suture, run quickly up, holds them firmly.

Horse-hair Drains.

Before the suturing is completed in front and behind, a dressing forceps is passed in from below, and its jaws appear at the base of the penis in front. The ends of two drains being seized, they can be drawn down to the lowest extremity of the wound—a little manipulation making their upper ends fall in and lie on either side of the base of the penis under the pubic flaps.

The wound in front of the penis is closed in a similar way to that behind. During these stages the assistants, holding the thighs, lower them, or approximate them, as required—thus relieving any tension.

There now remains but the very important work of

Stitching the Flaps to the Body of the Penis.

Six sutures of horse-hair, with a fine needle, should be introduced at equi-distant points through the tunica albuginea and the flaps. It is quite unsatisfactory to merely stitch the skin to such cellular tissue as may remain on the body of the penis. Finally, avoid piercing the dorsal vessels, and merely take up the tunica, and not the erectile structure, and you will introduce no complication into what will give a good result.

The mobility of the skin thus treated is very considerable—so much so, that it is possible in every case to bring it over the immense wounds which at first look so hopeless (see photos. 5 and 6), and provide not only a covering of sound and healthy integument to the perineum, but also to obtain immediate union as well (see photo. 8). Should any small portion of the lining of the prepuce have been left, being healthy, let it be stitched to the tunica albuginea. If there be the least sign of degeneration, the whole of it should be pared close to the cervix. It is in the first class of case that great care is to be paid to the application of the penile bandage, which should grasp firmly and evenly the corona and the tissues behind it, slacking off near the pubes. The little flap will then take root and not become oedematous. The only uncovered part remaining will be the circumference of the penis between the basal and cervical flaps (see photo. 6). This about the fifth or eighth day is grafted by THIESSEN'S method.

The chief points about the Flaps are as follow :—

1. They are derived from the integument of the upper and inner part of the thighs over the adductor and gracilis muscles.
2. The only time the knife is used is when the little window is cut in the fascia of COLLES.
3. The finger does all the other separation necessary.
4. The vessels are not necessarily broken.
5. The skin is shifted in by gliding.
6. For a good result, asepsis is absolutely necessary.

The Dangers connected with the making of Flaps are—

1. Should the wound not remain aseptic, the operator has opened up an enormous area of very absorbent tissue.
2. If the knife be used too freely, the vitality of the integument might be affected, and there would be danger of sloughing.

Photo. 6 represents the wound shown in No. 5, now closed in the median line—the flaps joining on the pubes, in front of the penis, and falling on its sides, where, being drawn forwards on it, they are sutured firmly to its fibrous envelope embracing its circumference like a ferule, and thus absolutely preventing the possibility of two granulating surfaces—common in the old operations—uniting and binding it by cicatricial tissue to the perineum, rendering it useless as to intromittent powers,

and, when used as a micturating organ, strongly reminding one of the function as performed in the *osmelidæ*. Photo. 12 shows this. It is from an old case of recurrence. The patient urinated backwards—coition was, I think, a gymnastic feat.

In photo. 13 the organ is situated in the midst of firm cicatricial tissue. To both of these individuals, natural urinary and genital functions were restored by me.

Behind the penis, in the mid line, there are seen the sutures ending posteriorly at the gap left for the extremities of the two horse-hair drains. On either side of the line, the bulgings corresponding to the testicle, are manifest.

Condition of Testes.

I know of no better opportunity for studying the external anatomy of the testicle than that afforded in the operation for elephantiasis scroti. One cannot imagine beforehand the marvellous changes in shape that the pressure of this disease causes.

If the testicle be quite flattened out, represented merely by a mass of fibrous tissue containing a little gland material, supported by a lengthy flabby cord, the circulation in which is dull, I think the best practice is to remove it—more especially if masses of leathery tunica have had previously to be cut away. Should an abscess have been present in the tunica or testicle, certainly castrate.

I have noted in all cases of hydrocele either congestion of the head of the epididymis, where the tunica is reflected from it backwards to the mesorchium, or fibrous induration of the same parts. It is possible that disease in the veins or lymphatics, at this situation—"filtration-angle," as it were—may have to do with predisposing to hydrocele.

THE SOURCES OF HÆMORRHAGE DURING THE OPERATION.

The vessels of macroscopic anatomy are greatly enlarged, and their branches increased in number and in calibre.

1. At the root of the penis, and over the cord, at the superior external angle—superior external pudic Vs.
2. At the outer side of the cord—inferior external pudic Vs.
3. Passing in to the side of the perineum—muscular branches of the sciatic.
4. Running from behind forwards to the back of the tumour—superficial perineal Vs. (always the largest).
5. When lifting out the cord and reflecting its coverings if diseased—cremasteric Vs.
6. The dorsal vein of the penis should never be injured. At times it is very large, but it is not necessary to interfere with it.
7. The frænum—its artery. The most troublesome vessel in this region! Frequently it will not be denied a ligature!

The foregoing are the trunks that furnish blood to the tumour superficially, and if the incisions be planned, as I have directed, the supply is stopped off at once; whereas, if the testicles be enucleated, first an extra quantity of

blood will be lost, as the vessels, now cut at their distribution, have again to be divided at the neck of the tumour!

Therefore, in operating without the Cord—

1. Note first the lines of approach of the vessels.
2. Make the incisions in the order stated, seizing the arteries as soon as divided, or on exposure.
3. Employ no ligatures—use the torsion-clamp method.

The Sutures.

Silkworm gut for main supporting stitches on the pubis and in the perineum, and strong horse-hair as a continuous suture, or not, as may be desirable. Fine needles and fine horse-hair are requisite for stitching the flaps to the tunica albuginea of the penis.

Drainage.

I employ two horse-hair drains placed as noted above. Rubber-tubing is not necessary.

The Dressings.

A strip of sterilised oiled silk may be placed over the line of the wound and another around the denuded penis. The former is not required, and may be dispensed with, as there is no granulating surface where it is applied—the union being by *first intention*. The penis, on the contrary, is decorticated, and the silk will facilitate the subsequent removal of the dressings.

Strips of sterilised boric lint wrung out of 1—2% carbolic lotion are then applied over the perineum and around the root of the penis.

Penis Dressing.

The penis being grasped by the finger tips of the *aide* applied to the glans, is well drawn out, and a bandage of gauze (perchloride or iodoform), 1" wide, is wound carefully around, fairly firmly near the cervix, less so towards the root. If this be not attended to, the end of the penis will swell, and should any healthy mucous membrane have been left from the interior of the prepuce, as a flap, it will become oedematous. Again, if loosely applied, it will gape, and the wound on the penis will become septic.

Perineal and Pubic Dressings.

The gauze (perchloride or iodoform) in proper lengths of single filmy thickness is applied by allowing it to fall and arrange itself in folds from above down. The inner parts cling alongside of the penis, enveloping its base laterally, and also its dorsum and venter to its middle. The gauze, falling thus, adapts itself well, and should form an even pad, extending back to the anus, and forwards above the pubes to near the umbilicus, and well out beyond the pubic arch on to the thighs.

When so used, it gives a resilient dressing, and forms a sort of valve around the base of the penis, to the bandage on which it must be evenly and firmly stitched.

The old-fashioned way of taking many folds of dressing and cutting a hole in the centre, and then bringing the penis through the opening, is wrong, as by it one

will find it practically impossible to maintain the wound sweet. The portion of the wound most likely to get septic is that at the base of the penis—first, because it never gets rest owing to changes in the size of the penis; and second, if the dressings be not brought up and stitched to the sides of the penis bandage, there will be an open space due to loosening of the dressings in a few hours as the patient shifts about in bed. The method recommended gives an elastic pressure, perfect and even closure of the field of operation in this dangerous region, and, since using it first, continuous experience has further impressed upon me its importance and the futility of the old way.

Dr. MANSON says (p. 527, *Tropical Diseases, 1900*): "The dressing should be massive, well padded, and kept in place by an eight-tailed bandage secured in front and behind to a strap round the waist, a hole being cut in front for the penis to emerge. The large wound generally does well."

However applicable this may be for the operation recommended by Dr. MANSON, it is quite unsuitable for my method. The dressings must be well and equally applied, as described, and kept firmly in contact by a roller affording even pressure as shown in photo. 7. The manner in which this is done is of importance. Should the application of the bandage be slovenly or careless, the dressings shift, the margins gape, the flaps are not maintained by an uniform pressure, and sepsis is the result!

If my method be pursued, other things being equal, the large wound (covered in now) will not generally, but ALWAYS do well!

THE BANDAGE.

Very important, indeed, is the correct binding of the bandage, and it well merits its personal application by the surgeon. The material is what is known in the bazaars here as "bandage-cloth." It is manufactured in the villages, and costs there about 4 annas a *thad*, and 7 annas in Calcutta. English bandages of calico are quite unsuitable. Photo. 7 represents the patient resting on the bandaging-block that I use, and it will be found a most convenient one for the purpose.

It also shows how the roller grasps firmly the pelvis and compresses the dressings on the pubes; and, in the manner of a double spica, holds firmly the tissues at the upper and inner parts of the thighs—disturbed by the shifting in of the skin for the flaps, and how it crosses and re-crosses the perineum, from before backwards and from behind forwards, supporting evenly and well the flaps covering the testes and root of penis. Its continuity with the penis bandage is also manifest. In fact, the pelvis and pubis, the groins, perineum, and inner parts of the buttocks, are so bound that the gauze is thoroughly kept in position, and yet the anus is uncovered and no obstruction is there to the passage of a soft catheter if required. Safety-pins and a needle and thread judiciously used, especially in the dangerous area, make everything absolutely firm, and prevent exudation and give that rest so essential for the quick healing of such an immense wound.

The bandaging having been completed, and the patient placed in a warm bed, a half hoop of bamboo supports the weight of the blankets, etc., from off the middle of the body. (In private cases I prefer the sheets of the bed to have been dried after soaking in boric lotion.) The knees being tied together, the patient may flex the hips or not, as he wishes, and he may be subsequently turned on either side, should he so desire. This facilitates the escape of flatus and relieves him from feelings of irksomeness.

SYMPTOMS OF SHOCK.

Should these supervene, then ether and strychnia hypodermically, and, if required, subcutaneous transfusion of saline fluid. I would caution the operator to be especially on his guard in cases where there is also elephantiasis of the legs or the arms. Also the chloroformist should bear this same caution in mind. Bandaging the extremities, and their elevation, together with the application of the faradic current, superadded to the foregoing measures, will rescue what otherwise might prove a hopeless case.

SUBSEQUENT TREATMENT.

The bladder may require to be relieved, and for this the instrument of choice is a good No. 8 JACQUES red rubber catheter.

On the fifth day the bowels are moved by a laxative, or enema, or both, and then

THE FIRST DRESSING

is carried out. The position most convenient for this is that shown in photo. 8, where the patient is supported comfortably on a dressing-block, which is a padded oblong piece of wood 5" square on section. (The bandaging block previously spoken of is not suitable.) Over it falls a waterproof sheet, which covers the bed, and on this, underneath the pelvis, is a basin which receives the douching lotion. When the bandages are cut, the dressings easily come off as far as the boric lint. It also, on softening with lotion, gives no trouble. Thorough moistening of the penis bandage allows of its removal. The appearance presented is that of an aseptic united wound, such as is shown in photo. No. 8.

The whole field of the operation is then carefully washed and cleaned around. This is grateful to the patient, the gentle rubbing has also a healthy action on the circulation of the parts. The drains should have been removed early and found quite sweet.

If there be any irritation of the tissues from the antiseptics, I use sterilised boric gauze next the skin and apply it dry.

The re-dressing is carried out as at the operation, and the same care is taken in the application of the roller (the bandaging-block is now substituted for the dressing-block).

The bowels move daily, and the progress is generally uneventful till the

SECOND DRESSING,

which takes place on the tenth day, and is carried out in a similar method to that just described. Now the stitches may in part be removed, and the deorificated penis grafted after the method of THIERSCH, if this was not done at the time of the first dressing. The grafts are taken from the thigh or arm.

About the fifteenth day the patient walks about; but I do not allow him to sit. By the twenty-first day he can do as he wishes, and is ready for discharge.

THE CONDITIONS COMPLICATING THE OPERATION

are various. Those mentioned are such as I have met with—

(a) *Hernia*—*Enterocoele*—*epiplocele*—*entero-epiplocele*.

The radical cure can be performed at time of removal of tumour.

(b) *Hydrocele*—of the funicular, virile and testicular varieties.

Excellent opportunities for the study of the formation of these in all stages are afforded. The tunica vaginalis will be found in all states, from the thin, almost normal, membrane, to a structure $\frac{1}{2}$ " thick, studded with fibrous plates, which have the macroscopic characters of cartilage. This tunica is at times very voluminous, when great care must be taken in dissecting the upper portion from the structures of the cord, lest injury be done to the circulation of the testes.

(c) *Varicocele*—This is not so common as one would expect, though I have removed very large examples of it.

(d) *Great Length of the Spermatic Cord*.—In such a case, as is shown in photo. 10, this may be expected. Then the cord should be packed in half folds, and these stitched to each other and to the deep tissues above and below.

(e) *Blubbery Infiltration*.—Occasionally I have met with this surrounding the testicles and extending up the cords to the abdominal rings. As it is in the deep tissues, it is, of course, quite distinct from that met with in the usual site of the superficial fascia. Every trace of it should be cleared away.

COMPLICATIONS MET WITH IN THE AFTER-TREATMENT.

The commonest is an attack of fever, of a malarial character, with a temperature running possibly to 104°. This is speedily got in check by the use of ordinary diaphoretics, followed by quinine.

A condition causing more anxiety is where the patient gets fever of a continued type with daily exacerbations. The diagnosis here must be made as to whether the cause is septic poisoning, or is a fever with a malarial basis.

If of the latter character, the wound will be aseptic and uninfamed, no puffiness or pain will be present in the perineum, or in the pubic region. The countenance of the patient will not be anxious, his eyes will be clear, and his tongue clean, and when the fever is low, he will have a sense of well-being and express himself as being fairly comfortable; whereas if sepsis be the cause, the condition will be very different, and suppuration will be found in the wound or its neighbourhood. I treat this ordinary continued type of fever by giving freely tincture and decoction of bark with sweet spirits of nitre and acetate of ammonia. This mixture agrees much better than quinine, and seems to me much more efficacious.

If irritation of the skin of the pubis, buttock or flaps in the perineum of an eczematous nature occurs, due to the antiseptics, I recommend that dry boric gauze be used. The injudicious application of strong carbolic and perchloride lotions is to be deprecated. I have seen maceration of the cuticle, due to the abuse of these good agents. Iodoform drenched over the parts under the dressings facilitates the undesirable state of affairs. Given a clean wound, brought together without tension, cover it with sterile boric lint, and outside it apply the gauze charged with carbolic acid, perchloride of mercury or iodoform—the result will be as you desire.

Retention of Urine

is very common, and it is not to be wondered at. I can only say—do NOT use either a silver instrument or a gum-elastic catheter; but take a sterile JACQUES red rubber No. 9, and you will have no trouble, and the patient no pain, and a possible urethritis will have been prevented.

Troublesome erections

occur at times. An ice-bag to the perineum (oiled silk intervening between it and the dressings) is the most efficacious remedy. Of the virtues of camphor and potash bromide, I am sceptical. They may be tried.

ELEPHANTIASIS IN THE FEMALE.

Thorough attention must here be paid to the cleanliness of the vulva and vagina. The same routine as in the male, making allowance for the sex, is pursued, and the patient is prepared in like manner. As photos. 14, 15, 16 and 17 show, the disease may attack one of the labia majora, one of the labia minora, the prepuce clitoridis, this same structure as well as one of the nymphæ. In addition the whole external genitals may be attacked. In the cases photographed, the disease was limited as stated.

THE OPERATION

is very simple. An external incision is made through the healthy skin, and, inside the growth, a second one through the healthy mucous membrane. These cuts are deepened and prolonged forwards and backwards till they meet. The vessels are seized and the tumor removed.

I advise that a JACQUES catheter (No. 10) be introduced into the bladder before the incisions be begun, and be retained there. If this be not done, then the wound may be drenched with urine at an inopportune moment. It is also much easier to introduce the instrument before cutting the parts, as the subsequent retraction alters considerably the normal relations, which had already been rendered quite sufficiently bewildering by the nodular masses of the growth.

Blood stasis being perfect, the skin can be shifted in and united to the line of section of the mucous membrane of the vagina, which also is itself loosened and drawn down. No drain is required. Dry dressings are used and the vagina lightly packed with gauze.

The bandage firmly fixes the dressings in the manner described before, and the catheter has a stitch in it, fixing it to the roller as it passes through.

In five days change the dressings, and you will find the parts united, save superficially here and there. Simple applications and ordinary cleanliness now suffice.

CONCLUSION.

Finally, as to this operation, I may repeat now with greater emphasis what I said in 1897^c and ask that my procedure be judged in the usual manner—

1st.—as to the mortality attending it;

2nd.—as to the

(a) immediate, and

(b) remote results to the patient;

3rd.—as to the advantages it presents to the surgeon and the hospital.

1st.—Dr. HIRA LAL BASU, one of my assistants, has collected the statistics of the cases treated in the Civil Hospitals in Bengal Proper from 1882 to 1899. I give it below—as well as one showing the cases treated in the Medical Institutions in Calcutta from 1888 to 1899:—

Statement showing the number of cases treated in the Civil Hospitals in Bengal Proper between 1882 and 1899.

Total treated.	Cured.	Died.	Rate per cent. of death.
910	839	71	7.802

Statement showing the number of cases treated in the Medical Institutions in Calcutta between 1888 and 1899.

Total treated.	Cured.	Died.	Rate per cent. of death.
946	880	66	6.976

* Vide Indian Medical Record of 1st March 1897.

In the mofussil the mortality from the operation is, according to this statement, 7.802 per cent. In Calcutta it is 6.976 per cent. This is a great improvement on the old days, when the mortality was 18.2 per cent.

The tables drawn up by my House Surgeon Dr. DEBENDRA NATH HAZRA, assisted by medical student SUDHAKER MAHAR, and examined for me by Dr. SATYA SARAN CHAKRAVARTI, the Registrar of the Medical College Hospital, show 140 cases of this operation successfully done by me. These cases are consecutive operations, and not selected, and a perusal of the matter under the heading

CHARACTER AND CONDITION OF THE PATIENTS,

will show that the patients were not all favorable cases for a surgical procedure of magnitude.

2nd.—(a) The patient has a wound covered with skin, and is therefore less liable to septic absorption and its concomitant evils. The perineum is closed and healed up in eight days. The flaps are continuous on and around the base of the penis, hence there is no necessity for clearing the penis from off underlying granulations, since none exist. The organ is quite free. Compare this with the result from the old operation.

In photos. 12 and 13 I am enabled to show the condition that usually followed that procedure—as far as binding down of the penis to the granulating surface that surrounded its base. The cicatricial bands are well shown. It can be imagined that copulation was impossible, and in No. 12 urination was *à posteriori*. I successfully operated on both these cases and restored the function of the organs with the removal of the growths. The flap method then precludes such untoward results.

(b) The remote effects are very favorable—being a pliant and soft perineum, and a penis covered with skin instead of cicatricial tissue, thus giving an organ in every way fit for its duties. I have seen many of my old cases and found everything very satisfactory as to these points.

3rd.—The surgeon has several advantages—(a) He cures his patient quickly—average under 30 days. (McLeod's published cases, operated on by his method, give an average of 70 days in hospital.) This advantage leads to less crowding and more beds.

(b) There is no fouling of the air of hospital wards by having numbers of cases with pus-forming sores occupying them.

(c) The wounds being closed and healed in eight days, the responsibility for the case is less, as any possible negligence of a dresser could then inflict practically no damage after that period.

McLEOD (*Heath's System of Surgery*, Vol. II, page 399,) propounds two questions demanding consideration in elephantiasis scroti:—

(1) "In what circumstances is recourse to operation justifiable or desirable?" and (2) "what is the most approved and successful method of operating?"

With reference to the first proposition, I may state that in this series of 140 consecutive cases, I have operated on every patient that presented, preparing each, however, for the operation according to the recognised cardinal rules of surgery. As I have before stated, the series embraces examples of all the ordinary complications usually found, and the exception was to have a wholly uncomplicated case.

Regarding proposition 2, I can at least claim that the method brought forward can be done well and with simplicity, and that the immediate and remote results are more favourable than in any other way of operating in elephantiasis of the genitals.

No.	NAME, AGE, CASTE, OCCUPATION.	Same disease in family.	Other cases in his village.	Hydrocele.	Syphilis.	Previous History. Fever and Inflammation.	Skin-disease.
58	Behariall, Hindu, rent collector, age 40.	None.	Rare.	None.	None.	Periodical fever with inflammation of inguinal glands at intervals of 25 to 30 days.	Eczema.
59	Dhani, Hindu, cultivator, age 30.	do.	Rare in his village, but common in Moorshidabad, where he used to reside for the past several years.	Yes.	do.	Periodical fever at full and new moon with swelling of inguinal glands, and scrotum afterwards.	Ringworm long ago when a boy.
60	Sheik Badal, Mohamedan, farmer in a jute-mill, age 30.	do.	Rare in his village.	do.	Yes. He had, it about four years ago.	Periodical fever at new and full moon with swelling of inguinal glands, and red pimples used to appear on the scrotum.	Ringworm.
61	Sukhadi Ram, Hindu, duffry, age 24.	do.	None.	do.	Yes.	Periodical fever at full and new moon with slight inflammatory condition of the spermatic cord.	None.
62	Kandarpa, Hindu, male, farmer, age 50.	do.	Frequently met with in the locality.	do.	do.	Periodical fever every 15 days, lasting for a day or two, with orchitis of the left chord.	Eczema.
63	S. C. Bonard, E. I., male, compounder, age 30.	do.	Rare in his village.	do.	do.	Gets malarial, but not inflammatory, fever.	Had eruption of S. S., but no other skin disease.
64	Benode, Hindu, male, shop keeper, age 40.	do.	do.	do.	None.	Periodical fever at full and new moon with swelling of the scrotum and testes.	None.
65	Luchman, Hindu, male, coolie, age 40.	do.	do.	do.	Yes.	Periodical fever at intervals of four or five months with swelling of scrotum	Ringworm.
66	Parbat, Hindu, male, cultivator, age 35.	do.	Saw two cases in his village.	None.	Yes. Chancre.	Periodical fever at intervals of a month, and sometimes at intervals of a week with swelling of the scrotum.	do.
67	Ramsatya Gerait, Hindu, farmer, age 35.	do.	None.	Yes.	None.	Had twice fever with inflammation of inguinal glands.	do.
68	Amulyanath Chatterjee, Hindu male, Brahmin priest, age 23.	His father had hydrocele.	Frequent.	do.	No.	Getting intermittent attacks of fever for the last three months, with pain in the joints.	Eczema.
69	Behariall, Hindu, male, grocer, age 46.	His father had big, scrotal tumour of similar size.	Some other cases present in his neighbourhood.	do.	Yes. Soft sore.	Getting fever for the last six months.	Ringworm.
70	Saroda Prasad, Hindu, male, cultivator, age 40.	Nil.	Frequent.	do.	No.	Fever during new and full moon.	Scabies all over the body.
71	Kunjabehary Chuckerberti, Hindu, Brahmin priest, inhabitant of Bankura, age 52.	His father had hydrocele.	do.	Had hydrocele.	Yes.	No fever; had two abscesses in the scrotum.	No.

* The table of cases from 1 to 57 appears with Professor Charles' valuable article in the *Indian Medical Record* of 1st March 1897.

Duration.	Where begun	Condition of inguinal gland.	Character of tumour.	Date of operation.	Date of discharge.	Days in hospital after operation.	Weight of tumour.	Microscopic examination of blood.	REMARKS.
4 years.	On scrotum.	Slightly enlarged.	Elephantoid.	15-4-98	2-6-98	1 month and 17 days.	1½ lb.	Not examined.	Suffered from malarial fever after operation.
10 years.	do.	Slightly enlarged and indurated, especially obliquely ext.	Elephantoid with hydrocele complicated with urinary fistula.	14-5-98	24-6-98	1 month and 10 days.	7 lbs., besides hydrocele fluid 24 oz. from both sides.	do.	Practically healed up in 15 days. Subsequent skin-grafting.
More than a year.	do.	Not enlarged.	Elephantoid.	30-7-98	21-8-98	22 days.	2 lbs.	do.	Uninterrupted recovery.
4 years.	do.	do.	Sarcocele double.	4-8-98	22-8-98	18 days.	1 lbs.	do.	do.
8 years.	do.	Slightly enlarged and indurated on left side.	Elephantoid with hydrocele and hernia.	10-9-98	17-10-98	1 month and 5 days.	6 lbs.	do.	Suffered from malarial fever.
Nearly 6 months.	In prepuce.	Not enlarged.	Elephantoid with hydrocele.	21-9-98	5-11-98	1 month and 14 days.	1 lb.	Filarie present.	do.
6 years.	On scrotum.	do.	do.	28-9-98	25-10-98	27 days.	2 lbs.	Not examined.	Nothing important; skin-grafting.
7 years.	do.	Enlarged.	do.	10-10-98	22-12-98	2 months and 13 days.	11 lbs.	do.	do.
or 4 years.	do.	Slightly enlarged.	Elephantoid.	5-11-98	9-12-98	1 month and 4 days.	8 lbs.	do.	do.
3 years.	do.	Slightly enlarged, but moveable and distinct	Elephantoid with hydrocele.	13-2-99	23-3-99	38 days.	6 lbs. 8 oz., besides fluid 3 oz.	do.	do.
3 years.	do.	Indurated on both sides.	Elephantoid.	29-10-98	2-12-98	1 month and 13 days.	3 lbs.	do.	do.
4 years.	do.	Not indurated.	do.	3-12-98	25-1-99	1 month and 22 days.	Solid portion 37 lbs. Liquid 13 lbs. aspiration.	Filarie present.	do.
5 years.	do.	A little indurated on both sides.	do.	26-11-98	1-1-99	1 month and 22 days.	2 lbs.	Not examined.	do.
2 years.	do.	Shotty and indurated.	do.	10-12-98	22-1-99	1 month and 12 days.	15 lbs.	Filarie not found.	do.

No.	NAME, AGE, CASTE, OCCUPATION.	Same disease in family.	Other cases in his village.	Hydrocele.	Syphilis.	PREVIOUS HISTORY. Fever and inflammation.	Skin disease.
87	Upendra, Brahmin, medical practitioner of Calcutta, age 24.	None.	None.	Yes.	No.	Nil.	None.
88	Akshoykumar Banerji, Brahmin priest of Makara, Dt. Burdwan, age 50.	His father had it.	Yes.	do.	do.	Since August last he has been getting fever off and on, which was accompanied by pain and inflammation.	do.
89	Ainuddi, native, male, coolie of Budge-Budge, age 47.	His eldest brother alone had it.	None noticed by him.	do.	Nil.	Suffered from malarial fever these 12 years, off and on.	do.
90	Beharilal Kola, Hindu, male, Shop-keeper, age 35.	None.	One case present.	do.	Yes.	Nil.	do.
91	Tisowry, Hindu, male, grocer, age 40.	[do.]	None noticed by him.	do.	do.	Had fever only ten days before admission.	do.
92	Gopi, Hindu, male, farmer, age 40.	[do.]	do.	No.	Nil.	Since 12 years he had occasional attacks of fever attended with inflammation and periodical discharge.	do.
93	Sudarsan Bannerji, Hindu, male, age 38.	do.	Yes.	Yes.	do.	Fever and inflammation occasional.	do.
94	Kedar Botu, Hindu, male, age 40.	do.	do.	do.	No.	No.	Yes.
95	Gajendhar Saha, Hindu, male, age 31.	do.	One case present.	...	Yes.	Used to get fever off and on before.	None.
96	Krishnalal Roy, Hindu, cultivator, age 36.	do.	Many cases present.	None.	do.	Used to get occasional attacks of fever and inflammation of both the inguinal glands.	do.
97	Nabin Chandra Mandal, Hindu, servant, age 60.	do.	Some cases present.	Present.	None.	Used to get periodical attacks of fever and inflammation of scrotum.	do.
98	Kailash Chandra Maji, Hindu, labourer, age 25.	do.	Two cases present.	Yes.	No.	Used to get occasional attacks of fever. Has got inflammation of right leg.	do.
99	Jogesh Chandra Karimakar, Hindu, goldsmith, age 29.	do.	None.	do.	Yes.	Used to get occasional attacks of fever.	Yes.
100	Manick Chandra Rana, Hindu, confectioner, age 26.	do.	Five cases present.	do.	do.	Used to get fever now and then with inflammation of the testes.	do.
101	Sonatan Saha, Hindu, cooly, age 34.	do.	Two cases present.	No.	No.	Used to get occasional attacks of fever.	do.
102	Damo, Hindu, age 40.	do.	5 or 6 cases, many of legs.	do.	do.	No.	do.
103	Durgapada Chatterji, Hindu, clerk, age 25.	do.	Few cases known.	do.	Yes. 6 years ago.	Occasional attacks.	Eczema.

Duration.	Where begun.	Condition of inguinal glands.	Character of tumour.	Date of operation.	Date of discharge.	Days in hospital after operation.	Weight of tumour.	Microscopic examination of blood.	Remarks.
2 months.	Scrotum.	Normal.	Elephantoid.	11-8-99	26-8-99	15 days.	3½ oz.	Filarie present in the hydrocele fluid.	Uninterrupted recovery.
8 or 9 years.	do.	do.	do.	28-8-99	10-9-99	14 days.	10 lbs. 6 oz.	Not examined.	do.
10 years.	do.	Slightly enlarged.	do.	31-8-99	4-10-99	34 days.	10 lbs. 2 oz.	do.	do.
8 years.	do.	Not enlarged.	do.	27-9-99	28-10-99	1 month.	8 lbs. 6 oz.	do.	do.
2 years.	do.	Indurated.	do.	20-9-99	11-10-99	20 days.	10 lbs.	do.	do.
About 12 years.	do.	Not enlarged.	do.	29-9-99	1-11-99	31 days.	1 lb.	do.	do.
8 years.	do.	do.	do.	1-10-99	8-11-99	1 month and 8 days.	4 lbs.	Filarie not found.	do.
12 years.	do.	Enlarged.	do.	4-11-99	20-12-99	1 month and 16 days.	15 lbs.	do.	do.
6 years.	do.	do.	do.	17-11-99	26-12-99	1 month and 8 days.	27 lbs.	do.	do.
About 6 years.	do.	do.	do.	22-11-99	15-12-99	23 days.	4 lbs.	do.	do.
About 20 years.	do.	Not enlarged.	do.	7-12-99	3-1-00	27 days.	8 lbs. 4 oz. 16 oz. of hydrocele fluid.	Filarie present.	do.
About 4 years.	do.	Indurated.	do.	4-12-99	26-12-99	23 days.	4 lbs., besides hydrocele fluid 18 oz.	Filarie not found.	do.
About 2 years.	do.	Not indurated.	do.	12-12-99	23-1-00	41 days.	2 lbs. 6 oz. besides hydrocele fluid 10 oz.	do.	Malarial fever.
About 8 years.	do.	Indurated.	do.	5-12-99	27-12-99	23 days.	9 lbs. 2 oz. besides hydrocele fluid 7 oz.	do.	Uninterrupted recovery.
About 4 years.	do.	do.	do.	30-11-99	5-1-00	1 month & 5 days.	7 lbs. 8 oz.	do.	Malarial fever for 7 days.
2 years.	do.	Not enlarged.	do.	9-1-00	9-2-00	1 month.	5 lbs.	do.	Uninterrupted recovery.
1½ years.	do.	Indurated.	do.	17-1-00	5-2-00	19 days.	6 lbs.	do.	do.

No.	NAME, AGE, CASTE, OCCUPATION.	Same disease in family.	Other cases in his village.	Hydrocele.	Syphilis.	PREVIOUS HISTORY. Fever, and inflammation.	Skin disease.
104	Benwarf, Hindu, servant, age 30.	None.	Several cases of elephantiasis of scrotum. One case of elephantiasis of penis.	No.	No.	Used to get occasional attacks of inflammatory fever.	Yes.
105	Vishenji Irjee, Hindu, merchant, P. C. age 25.	do.	None.	Yes	do.	Occasional attacks with exudation of lymph.	Ringworm.
106	Durga Das, Hindu, zamindar, P. C., age 26.	do.	Some.	do.	do.	do.	do.
107	Haridhan, Hindu, age 35.	do.	None.	No.	do.	No fever. Inflammation increased with full moon.	No.
108	Devendra, Hindu, age 30.	do.	do.	do.	do.	Occasional attacks.	Yes.
109	Jankinath, Hindu, age 35.	His father suffered from scrotal tumour.	do.	Yes.	do.	Occasional fever increased with full moon.	do.
110	Ensaw, Mohammedan, age 40.	No.	do.	No.	Yes.	No fever. Inflammation increased with full moon.	do.
111	Chandra, Hindu, age 30.	do.	No.	Yes.	No.	Increased with full moon.	No.
112	Rampada, Hindu, age 35.	do.	Many.	do.	do.	Fever off and on.	do.
113	Bejoy Krishna Das, Hindu, age 21.	do.	No.	No.	Yes.	do.	do.
114	Tajuddin, Mohammedan, age 42.	do.	Many.	Yes.	No.	Fever every month.	do.
115	Ishan Shaha, Hindu, age 32.	do.	do.	do.	Yes.	Fever off and on.	Ringworm.
116	Sarada, Hindu, age 36.	His brother had the disease.	do.	do.	do.	do.	No.
117	Bipin Pal, Hindu, age 30.	do.	do.	No.	No.	No fever.	do.
118	Bakhal, Hindu, age 25.	do.	do.	do.	do.	do.	do.
119	Haripada, Hindu, age 30.	His father had the disease.	do.	Yes	Yes.	Fever off and on.	do.
120	Laloo, Hindu, age 25.	No.	do.	No.	No.	No fever.	do.
121	Haripada, Hindu, age 35.	do.	do.	Yes.	do.	Fever off and on.	do.
122	C. Davis, age 38.	do.	Many cases in the part where he lived.	No.	do.	do.	do.

Duration.	Where begun.	Condition of inguinal glands.	Character of tumour.	Date of operation.	Date of discharge.	Days in hospital after operation.	Weight of tumour.	Microscopic examination of blood.	Remarks.
4 years.	Scrotum.	Enlarged and indurated.	Elephantoid scrotum and penis.	13-2-00	10-3-00	25 days.	4 lb. 2 oz.	Filariae not found.	Uninterrupted recovery.
4 years.	do.	Not indurated.	Elephantoid.	4-12-99	.....	.....	10 lbs.	do.	Uninterrupted recovery. (Healed up in 12 days and skin grafting.)
4 years.	Scrotum and penis.	do.	do.	6-1-00	.....	.....	18 lbs.	do.	Uninterrupted recovery. (Healed up in 21 days and skin grafting.)
About 2 years.	Scrotum.	Not enlarged.	do.	7-5-00	2-6-00	26 days.	2 lbs.	Filariae detected.	Uninterrupted recovery.
About 4 years.	do.	Indurated.	do.	21-5-00	20-6-00	30 days.	6 lbs.	Filariae present.	Uninterrupted recovery. Skin grafting.
6 years.	Scrotum and penis.	do.	do.	4-6-00	2-7-00	28 days.	8 lbs.	do.	do.
3 years.	Scrotum.	Not indurated.	Lymph scrotum.	2-8-00	1-9-00	30 days.	6 lbs.	do.	.....
4 years.	do.	Not enlarged.	do.	1-8-00	3-9-00	33 days.	6 lbs.	do.	.....
10 years.	do.	Normal.	Elephantoid.	31-8-00	7-10-00	37 days.	4 lbs.	do.	.....
6 years.	do.	Not enlarged.	do.	4-9-00	4-10-00	30 days.	15 lbs.	Filariae not found.	.....
15 years.	do.	Normal.	Lymph scrotum.	12-9-00	15-10-00	33 days.	10 lbs.	Filariae found.	.....
9 years.	do.	Not enlarged.	Elephantoid.	17-10-99	4-11-00	18 days.	6 lbs.	Filariae not found.	.....
8 years.	do.	do.	do.	14-10-00	3-11-00	20 days.	2 lbs.	do.	.....
6 years.	do.	do.	do.	20-11-00	9-12-00	19 days.	16 lbs.	do.	.....
10 years.	do.	do.	Lymph scrotum.	20-11-00	9-12-00	19 days.	15 lbs.	Filariae found.	.....
13 years.	do.	Normal.	Elephantoid.	21-11-00	12-12-00	21 days.	10 lbs.	Filariae not found.	.....
9 years.	do.	Not enlarged.	do.	26-9-00	19-11-00	23 days.	10 lbs.	do.	.....
15 years.	do.	do.	do.	5-12-00	.....	.....	4 lbs.	do.	.....
4 years.	do.	Normal.	do.	10-12-00	17-2-01	2 months and 8 days.	4 lbs.	do.	Had hernia. Encysted hydrocele.

INDIAN MEDICAL RECORD.

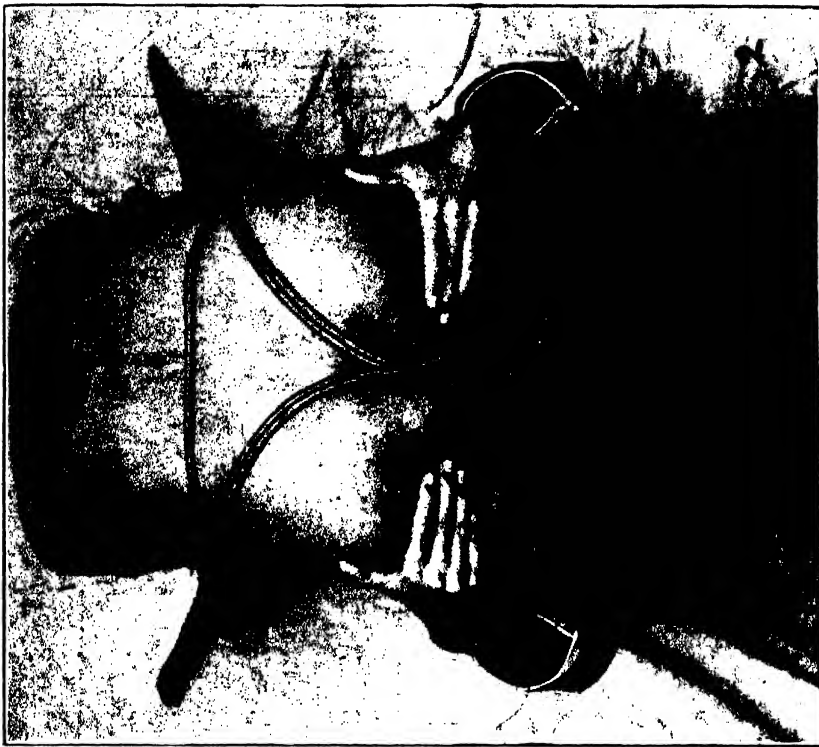
[March 6, 1901.]

No.	Name, Age, Caste, Occupation.	Same disease in family.	Other cases in his village.	Hydrocele.	Syphilis.	Previous History. Fever and inflammation.	Skin disease.
120	Mohammed, Hindu, age 40.	No.	Many.	Yes.	No.	Fever off and on.	No.
121	Mohammed, Hindu, age 29.	do.	do.	do.	do.	do.	do.
122	Mohammed, Hindu, age 30.	do.	do.	do.	do.	do.	do.
123	Mohammed, Mohammedan, age 30.	do.	do.	No.	do.	do.	do.
124	Mohammed, Mohammedan, age 30.	do.	do.	do.	do.	do.	do.
125	Kalish, Hindu, age 30.	do.	Yes.	Yes.	do.	do.	do.
126	Baradwa, Hindu, age 18.	do.	Many.	do.	do.	do.	Ringworm.
127	Kalish, Hindu, age 40.	do.	do.	No.	do.	do.	No.
128	Bahula, Mohammedan, age 24. no. 1283 from 100000	Father.	do.	Yes.	do.	do.	do.
129	Kalish, Hindu, age 35.	No.	do.	do.	Yes.	do.	do.
130	Mohammed, Hindu, age 30.	do.	do.	do.	do.	do.	Ringworm.
131	Mohammed, Hindu, age 35.	do.	do.	No.	No.	do.	No.
132	Mohammed, Hindu, age 40.	do.	do.	Yes.	do.	do.	Ringworm.
133	Kalish, Hindu, age 40.	Brother.	do.	do.	Yes.	do.	do.
134	Satlu, Hindu, age 40.	No.	do.	do.	do.	do.	No.
135	D. bandra, Hindu, age 30.	Brother.	do.	do.	No.	do.	do.
136	Suran, Hindu, age 22, P.C.	No.	do.	do.	do.	do.	do.
137	Mohammed, Hindu, age 41, P.C.	do.	do.	do.	do.	do.	do.
138	Dahan, Hindu, age 25, P.C.	do.	do.	do.	Yes.	do.	do.
139	Panna, Hindu, age 37, P.C.	do.	do.	do.	No.	do.	do.
140	Gouri Bala, Hindu, F., age 18, P.C.	do.	do.	do.	Yes.	do.	do.

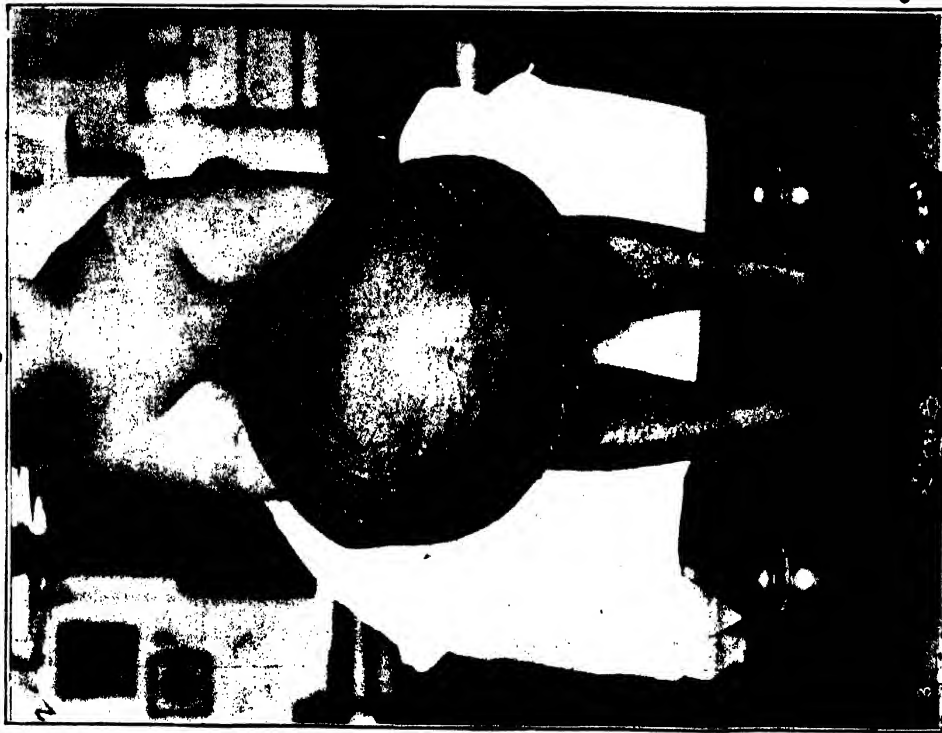
Duration.	Where begun.	Condition of inguinal glands.	Character of tumour.	Date of operation.	Date of discharge.	Days in hospital after operation.	Weight of tumour.	Microscopic examination of blood.	REMARKS.
20 years.	Scrotum.	Not enlarged.	Elephantoid.	11-12-00	28-12-00	17 days.	4 lbs.	Filarie not found.	.....
14 years.	do.	do.	do.	12-12-00	7-1-01	26 days.	6 lbs.	do.	.....
16 years.	do.	do.	do.	17-12-00	12-1-01	25 days.	4 lbs.	do.	.....
4 years.	do.	do.	do.	18-12-00	9-1-01	21 days.	4 lbs.	do.	.....
10 years.	do.	do.	do.	22-12-00	.....	.....	4 lbs.	Filarie found.	.....
12 years.	do.	Normal.	do.	26-12-00	16-1-01	21 days.	2 lbs.	.....	.....
10 years.	do.	do.	do.	7-1-01	.....	.....	16 lbs.	Filarie found.	.....
15 years.	do.	do.	do.	16-1-01	.....	.....	31 lbs.	Filarie not found.	.....
3 years.	do.	do.	do.	23-1-01	.....	.....	3 lbs.	do.	.....
3 years.	do.	do.	do.	25-1-01	9-2-01	15 days.	4 lbs.	.....	.....
8 years.	do.	Enlarged.	do.	28-1-01	.....	.....	38 lbs.	Filarie present.	.....
5 years.	do.	Not enlarged.	Lymph scrotum.	5-2-01	.....	.....	12 lbs.	do.	.....
8 years.	do.	do.	Elephantoid.	31-1-01	14-2-01	15 days.	6 lbs.	Not found.	.....
3 years.	do.	do.	do.	1-2-01	.....	.....	9 lbs.	do.	.....
9 years.	do.	do.	do.	4-2-01	.....	.....	36 lbs.	do.	.....
3 years.	do.	do.	do.	7-2-01	.....	.....	6 lbs.	do.	.....
4 years.	do.	do.	do.	15-11-99	26-11-99	11 days.	4 ozs.	do.	.....
5 years.	do.	do.	Lymph scrotum.	14-8-99	14-9-99	1 month.	30 lbs.	do.	.....
6 years.	do.	Enlarged.	Elephantoid.	27-12-00	20-1-01	24 days.	36 lbs.	do.	.....
3 years.	do.	Not enlarged.	do.	5-11-00	17-11-00	13 days.	12 ozs.	do.	.....
1 year.	Prepuce.	do.	do.	16-2-01	.....	.....	6 lbs.	do.	.....



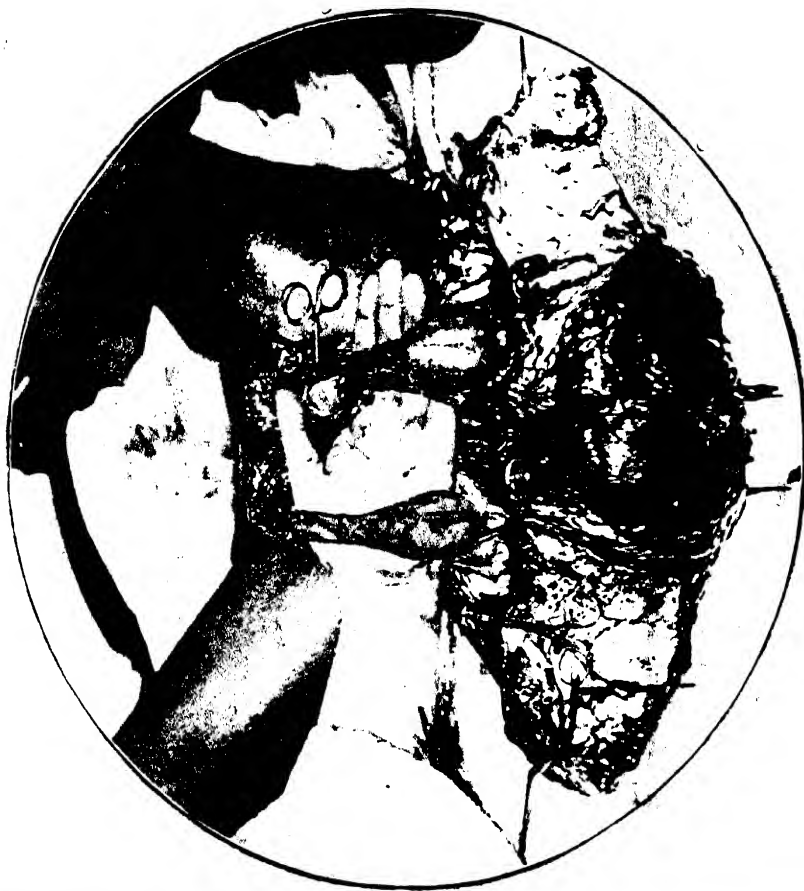
No. 1. Showing manner of application of the Rubber Tourniquet from the front.
(This patient was 62 years of age, with large right inguinal Hernia—
Operation successful).



No. 2. Back View of No. 1.



No. 3. Solid form of Elephantiasis. See for steps of operation in this case
Figs. 4, 5, 6, 7, 8.



No. 4 Tumour thrown down : still attached below. Firm connections of Testes require division
—all other parts of Testes and Cords separable by finger.



No. 5. Field of operation on complete removal of Tumour in No. 4.



No. 6. Wound covered in by Flaps from Thighs : Base of Penis also closed over by the same small reflection of healthy lining of Prepuce from Cervix.



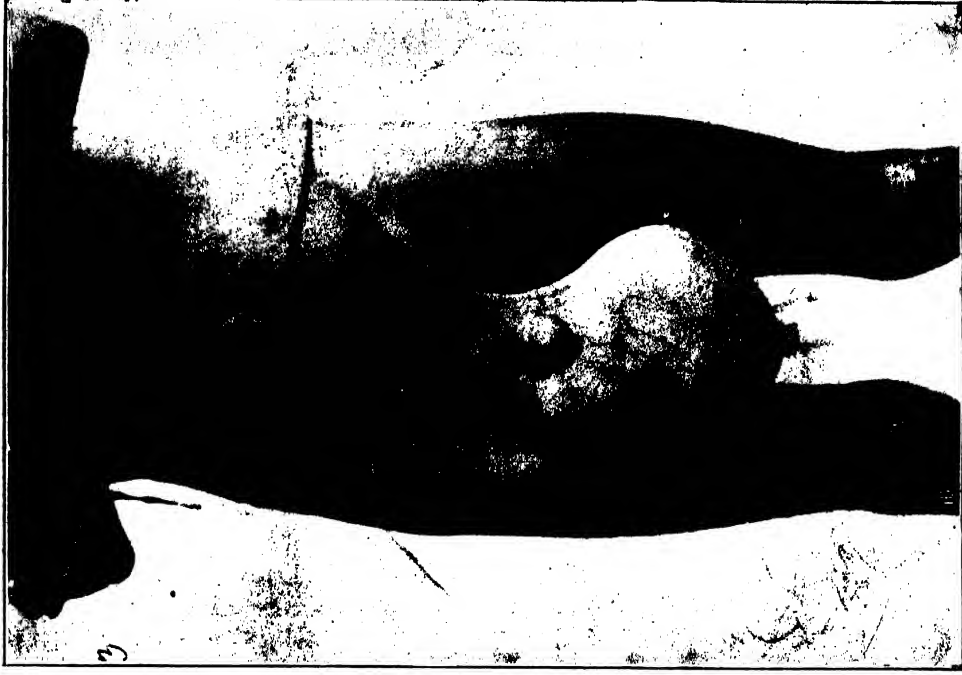
No. 7. Patient resting on "Bandaging-block" which is under his Sacrum. Bandage applied.



No. 8. First dressing. Six days after operation : Flaps taken well : Wound aseptic.



No. 9. Good case of Elephantiasis of the Penis. Scrotum healthy.



No. 10. Elephantiasis Complicated with Double Hydrocele : Cords very long.



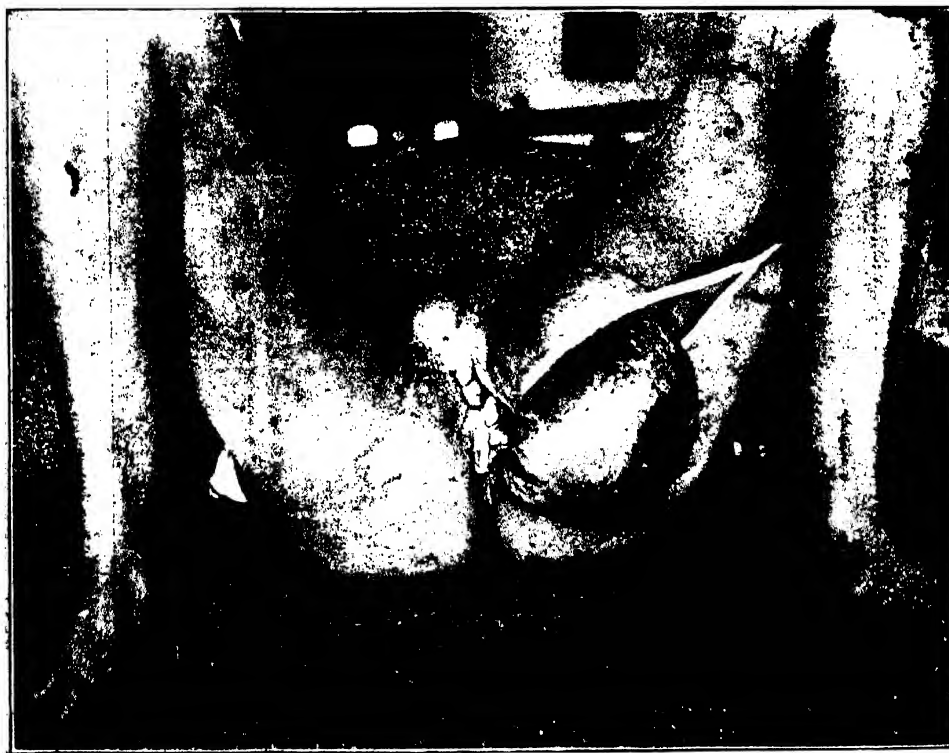
No. 12. Case of Recurrence in a case operated on 20 years ago. Shows the binding down of Penis by Cicatricial band. Cured by my operation.



No. 11. Hydrocele followed by Elephantiasis (lower part of Scrotum).



No. 13. Case of Recurrence in a patient operated on 15 years ago. Shows binding down of the Penis by Cicatricial bands common in the old method of operating. Cured by my operation.



No. 14. Elephantiasis of Left Labium Major.



No. 15. Elephantiasis of the Coverings of the Clitoris.



No. 16. Elephantiasis of the Left Labium Minor.



No. 17. Elephantiasis of Left Labium Minus and Coverings of Clitoris.

Indian Medical Record.

6th March 1901.

PREVENTION OF MALARIAL FEVER.

As the result of the labours of the Committee of the Royal Society in Western Africa, some very interesting and very practical observations have been published regarding the prevention of malaria, which, we may add, is now almost universally accepted as being a disease spread by the agency of certain species of the anopheles mosquito.

Regarding the immunity ascribed to the natives by many of the older observers, we now are given a commonsense explanation. The immunity, such as it is, is an acquired immunity, the resultant of many previous attacks of the disease.

In children there is no immunity, and the immunity of adults even is not absolute; they sometimes get the disease in its worst form. They are therefore situated with respect to malarial fever much as adult Europeans are to measles or scarlatina. Most of them do not get the disease, because they have had it when young; but those who have not previously suffered may get very severe attacks.

The proportion of native babies and children under two years of age, who are infected with the malarial parasite, is very large.

The common belief that natives suffer less from mosquitoes than Europeans appears to be untrue. Europeans may feel more irritation, but natives are more attractive to the insects, and are bitten to a greater extent. In proof of this, it is stated that anopheles frequently swarmed in the native houses, while in those of Europeans, a short distance away, very few or none could be found.

The following experiment affords still further evidence of the same thing:—

"In a tent in which a European had been accustomed to sleep, pitched in the compound at A., only one or two anopheles were usually to be found in the morning. Two natives were then allowed to sleep in the tent, with the result that the first morning 19 anopheles were captured. The second morning 62 anopheles, most of which had fed, were caught. The natives did not complain unduly of mosquitoes. The use of the tent by the natives was then discontinued, and the anopheles rapidly became fewer in number."

Some interesting information is given about the habits of the anopheles, its breeding places, and the manner of the preservation of the species.

The larvæ require still water to thrive in, as they are surface feeders; therefore large bodies of water or large tanks are not suited for them.

If dried for 48 hours, the eggs will not hatch; earth taken from dried up pools in which larvæ had been,

and placed in conditions suitable for hatching, did not produce any larvæ. The eggs, therefore, do not lie dormant in the soil during the dry season, and then turn into larvæ with the first rains, as has generally been supposed.

The larvæ of anopheles were found in brooks, both in town and country, in small tunnels of water, in pools left among the rock beds of streams, otherwise dried up in the dry season, in natural more or less permanent pools, in the water which collects in pits dug by the natives to get the mud used in building their houses, and in temporary pools during the rains, which persist for a fortnight or more.

They were also found in some wells, and in great abundance in pools and ponds in low-lying places where the ground water is very close to the surface. The breeding places are more numerous where the ground water is sufficiently near the surface to be reached by pits or other excavations dug for the purpose of building houses or for any other purpose. They were also found in brackish water and in water containing 0.6 per cent. of salt.

BEHAVIOUR OF THE SPECIES.

From observations made, it is believed that the adult anopheles can exist throughout the whole of the dry season concealed in grass, shrubs or trees, waiting until the first rain falls to lay their eggs. At Sierra Leone, in a particular area that had been free from breeding grounds for three months, anopheles were still to be found ready to lay their eggs.

Experimental pools formed in the dry weather and supplied with pure water soon became infected with anopheles larvæ, which must have been hatched from eggs recently laid.

Granted, then, that the adult anopheles can live throughout the whole of the dry season, it is important to learn that its most favourite haunt is the dwelling-houses of the natives. In Lagos, at the end of the dry season, anopheles can be found in nearly every native hut; they pass through much or the whole of the dry season without breeding.

A certain proportion of the anopheles found in the native huts were always infected.

Thus in Africa, at any rate, the native is the great benefactor of the anopheles or malaria mosquito; he provides him with food and shelter, and only too frequently he kindly constructs ponds for him to breed in. The anopheles is a parasite, living with man and on man, and sharing with him the honor of providing in its body a suitable medium for the growth and development of the microscopic organism which causes malarial fever. This is the marvellous conclusion to which the most recent scientific researches into the origin and cause of malarial fever has led us. Let others bring these observations into harmony with the grand scheme of creation, where everything is subservient to man—it is our part to deal merely with the facts.

The protection of the native in Africa is considered to be hopeless at present, and the protection of the European depends upon his isolation from the native.

The following is the conclusion of CHRISTOPHER and STEPHENS :—

"So closely associated, indeed, are malaria and the native in Africa, and so wonderfully constant is the presence of anopheles where natives are collected in numbers, that we doubt whether any operations, now possible, directed against anopheles, will do much to diminish the danger of malarial infection. In fact, in Africa, the primary aim should not be the destruction of anopheles, but rather to remove susceptible Europeans from the midst of malaria. To stamp out native malaria is at present chimerical, and every effort should rather be turned to the protection of Europeans."

It is important in this connection to learn that the anopheles can fly greater distances than is usually imagined. CHRISTOPHER and STEPHENS put it at 400 to 600 yards.

Personal protection from malaria is now nothing more or less than protection from the bites of anopheles mosquitoes, and the sooner every one learns to recognise this variety of mosquito, the better.

The protection of a community is, however, a different thing, and depends, as we have seen, on the separation of Europeans and natives.

The conditions to be fulfilled in camps are thus stated :—

1. A site should be selected for European dwellings as far as possible from a native village; a mile would undoubtedly suffice.

2. The camp of the native labourers should also be placed at the greatest possible distance (half a mile to a mile).

3. The house servants and others should not sleep in the European compound, but a quarter to half a mile away.

4. One personal servant only should be allowed to remain in the camp at night.

Native children are the great source of malaria; their blood is almost invariably infected. Natives over ten years of age are more or less immune. It is most important to note that the native child may present none of the usual characteristics of an attack of fever, though all the time its blood is full of parasites.

In Europeans we are told that parasites are rarely found, except in definite attacks of fever.

The grand conclusion is that malarial fever is a contagious disease contracted through the medium of the mosquito and the native child.

All the foregoing practical details have no doubt an equally important relation to the country, and now that the way has been pointed out, observations will gradually accumulate to show their truth.

One conclusion that we think may be safely drawn from them is that KOCH's prophylactic method is not likely to be of any advantage in a country of mixed population.

His method is to dose all the people with quinine in the season when the mosquitoes are dormant, so that there will be no infected blood to infect the succeeding broods

of young anopheles, and of course the young anopheles are harmless, unless they have fed on the blood of a person suffering from malaria.

The fact that young children and infants are the chief sources from which the anopheles get the infection is sufficient to show the futility of KOCH's proposition.

A REVIEW OF OUR KNOWLEDGE OF MALARIA.

THE *New York Medical Journal* publishes in detail an address delivered at the opening of the Twentieth Annual Session of the Philadelphia College by Dr JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology, on the progress of medical knowledge in reference to malaria. We cull the essentials. The speaker pointed out that the accumulated knowledge of malaria in 1880 was as follows: (1) The disease is not universally prevalent, but is confined to well-defined and usually rather circumscribed districts, in some of which it is continuously prevalent and extremely pernicious; in others intermittently prevalent and milder in type. (2) The districts in which the disease prevails are usually marshy lowlands. (3) The disease is most prevalent and severe in the summer, especially in damp seasons and toward the autumn. (4) The danger of infection is greatest after sunset and during the night. (5) All ages, both sexes, rich and poor, black and white, may become affected, though the Negro resists the disease better than the white man. (6) Newcomers in a malarious district are more liable to infection than the regular inhabitants. (7) The infection occurs most readily near the ground, and by living in tall buildings, ascending to neighbouring hills at night, may be avoided. (8) The danger of infection is greater in still than windy atmospheres. (9) The danger of infection is increased by sleeping with the windows open at night, especially on the side of the house toward the marsh. (10) Trees planted between a domicile and a swamp seem to keep off the infection. (11) Winds carry the infection but a short distance. (12) Thin clothing predisposes to the disease if worn at night. (13) The disease is not contagious.

Three important discoveries had been made since 1880: (1) The discovery of the malarial parasite by LAVERAN; (2) the discovery of its developmental cycle in man by GOLGI; and (3) the discovery of its developmental cycle in the mosquito by ROSS. Other observers who had assisted towards the progress of this knowledge had been MACCULLUM, MANSON, BASTIANELLI, BIGNAMI, and GROSSI. Our knowledge at present on the mosquito theory may be put shortly in non-technical language. We now know that when a mosquito of the species *anopheles claviger* sucks blood from a human being infected with malaria, the parasites underwent a cycle of development in the body of the insect, which is completed in from one to three weeks, according to the temperature, and results in the formation of a large number of minute embryo parasites—blasts—which find their way to the cells of the salivary glands, from which, together with the saliva, they pass into the next animal or man bitten by the mosquito, and there set up a malarial infection characterised by the parasites of LAVERAN, pursuing the developmental cycle described by

GOLAI, and ready, as soon as mature, to infect the next mosquito sucking the blood. There was thus an alternating series of infection—man, mosquito, man, mosquito, &c.—going on *ad infinitum* until cold weather or other accident destroyed the mosquitoes or made them inactive. In order, therefore, that a person shall be infected with malaria, it was necessary that he shall be bitten by a particular kind of mosquito after a definite length of time after it has become infected by the blood of a malarial patient. The essential was the presence of the *blasts* in the saliva of the mosquito, and these occurred only in infected mosquitoes. Anopheles mosquitoes bred from the larva were harmless until accident brought them to some one suffering from malaria, and then, after one to three weeks, they were ready to infect every one they bit. The ability to infect is not imparted by the mosquito to its offspring. It was not impossible that malarial infection might take place in other ways than by mosquito bites, but the collected experimental evidence made this so improbable that it could almost be denied. Certain districts, and particularly marshy districts, were malarious, because the appropriate mosquitoes inhabited them. Such localities were sometimes free from the disease, because the mosquitoes were not infected. They might suddenly become the hot-beds of the disease by the advent of some temporary or permanent visitor with malaria by whom the mosquitoes became infected. Tropical climates, summer seasons, warm weather and dampness, all favored the disease. The autumn was the most malarial season, because there were more mosquitoes then, and because more of them had had the opportunity to become infected. Infection took place at night rather than the day time, because mosquitoes were nocturnal in their habits. Infection occurred near the ground, because mosquitoes frequent lowlands and do not fly high. It occurred in rooms with open windows, as the mosquitoes could readily enter. Still atmospheres propitious to it, for mosquitoes sought shelter from the wind. It was carried but a short distance by the wind, because mosquitoes avoided flying in the wind. Its occurrence was favoured by turning up the soil because of the occurrence of puddles in which the insects breed. It disappeared from marshy districts after they were drained, because the mosquitoes no longer found breeding places there. It disappeared when the soil was well tilled, because their breeding places were interfered with. The disease was readily transported from place to place by sufferers from it seeking salubrious localities, and by the transportation of mosquitoes in carriages, railroad cars, &c. The disease had an incubation of some days, so that its development in a patient at one place might not mean that it was not acquired at another place. From being thought to be due to bad air, it was now known that malaria was a specific infectious disease, and that the air had nothing to do with it.

Etiology of Gall-stones.

FREDERICK C. SHATTUCK (*Philadelphia Medical Journal*) says that little is known of this subject. What we do know is that (1) gall-stones are composed mainly of cholesterol, often partly of biliverdin calcium precipitated by changed reaction of the bile. A nucleus may be formed of biliverdin calcium, bacteria, a foreign body, or a combination of these. (2) Gall-stones, while not unknown in childhood, are rare under the age of thirty years; from thirty to sixty they are more common, little difference existing between the several decades of this period in point of frequency; after sixty they are more common than in earlier life. (3) They are from two to four times more common in women than in men. Stasis of the bile is a very important etiological factor, and the chief causes of this seem to be, in the writer's opinion, tight lacing and want of exercise, and typhoid fever. He thinks we can get rid of the latter cause more easily than of the former.

COMMENTS AND NEWS.

I. M. S. COMPETITIVE EXAMINATION—AN APPEAL TO GOVERNMENT FOR A LOCAL TEST.

INDIAN MEDICAL ASSOCIATION.
OFFICE : 50, PARK STREET, CALCUTTA.

20th February 1901.

TO—W. R. LAWRENCE, Esq.,

Private Secretary to H. E. the Viceroy.

DEAR SIR,

At the request of the Council of the Indian Medical Association, I beg most respectfully to place the subject-matter of this letter before you, in the hope that it may meet with consideration by His Excellency the Viceroy. It is also hoped that the urgency and importance of this question will be deemed a sufficient plea for this direct appeal to His Excellency.

A statement has appeared in the public Press, to the effect that the Government of India is desirous of employing twenty medical men in India for vacancies in the Indian Medical Service on salaries of Rs. 600 and Rs. 500 monthly, according to their qualifications. It is further announced that candidates for such employment will be engaged for twelve months only, the Government reserving to itself the right to terminate such engagement by a month's notice.

These posts are offered only to men possessing British medical diplomas, special terms being allowed to those holding diplomas in Public Health.

The Council of the Indian Medical Association feel assured that no medical man possessing the above qualifications, practising his profession in India, will be likely to accept temporary employment in the I. M. S. The Council feel certain, however, that, were permanent employment in the I. M. S. offered to graduates of our Indian Universities, men, suitable in every way for such posts, would soon be forthcoming.

The Council desires it mentioned that under the amended Medical Act of Great Britain, of 1894, graduates of Colonial and Indian Universities are empowered to register their degrees and diplomas on the *British Medical Register*, and that, under Para. C, Rule 4 of the "Regulations for examination of candidates for appointments in the I. M. S.," "a certificate of registration under the Medical Act, of the degrees, diplomas, and licences possessed by the candidate," is the condition which qualifies for appearance at the competitive examinations held half-yearly in London, and that there is therefore no legal barrier to graduates of Indian Universities being accepted as candidates for the I. M. S. by virtue of their registered Indian diplomas alone.

Hitherto candidates from India have been, and are still, compelled to go to London to appear in the I. M. S. competitive, held there half-yearly in the months of February and August. To certain vague reasons, which the Medical Press in London ascribes as the cause of the growing unpopularity of the I. M. S., there has recently, and for the past few years, been declared to be dearth of suitable candidates in England for the I. M. S. Under the circumstances, it has been considered by the Council of the Indian Medical Association that an appropriate means of meeting this difficulty would be the reservation of a certain number of vacancies in the I. M. S. for competition among graduates of Indian Universities, the tests of fitness being similar to those now applied to candidates in the London competitive.

It is felt that such a concession on the part of the Government of India would not only be an act of justice towards

the medical colleges of India and the medical profession in this country, but it would undoubtedly prove a most encouraging stimulus to elevating the tone and the status of the medical profession in this country, and this would tend to the public good.

I am, dear Sir,

Yours faithfully,

JAMES R. WALLACE, M.D., F.R.C.S.,
Secretary, Indian Medical Association.

A PARADISE OF SPINSTERS.

THE *Philadelphia Medical Journal* says:—The celibate tendency of the modern woman is beginning to worry the vital statistician. The decadence of marriage is threatened, and the gradual extinction of the race. Mr. CARROL D. WRIGHT has been investigating the subject, and finds that of 17,427 representative working women, living in 22 cities, 75% of them being under 25 years of age, 15,337 were single women. These figures are simply appalling. In the good old times, it is claimed, one-half of these young women would already have been married from three to five years. The fact seems to be that there is a tendency to the postponement of marriage on the part of both sexes. In the case of women this postponement is too often fatal, and in the case of men it gets to be a bad habit. But the evil being recognized and reduced to figures, the next natural thing to do is to seek for the causes of it.

Several theories have been advanced to account for this increasing unpopularity of marriage. The statement that young men have become more shy and embarrassed in the presence of the modern go-ahead girl, may have some truth in it. The present tendency is undoubtedly to cultivate self-assurance and independence in young women, and to encourage them to become self-supporting. Many avenues are open to them; they can make a comfortable living and enjoy life. Many a woman, in fact, can make a better living for one than the majority of young men can make for two (with prospects of more). This situation tends to check marriage in two ways: First, it makes the women more independent of men, and, therefore, in the second place, perhaps a trifle less attractive to them. Marriage is an odd affair, anyhow. It is largely a psychical business at the start, based upon a delicate emotional instinct; and all the logic and reason of a progressive age cannot alter that fact. The pushing and business-like modern woman is not conducive to it.

The competition and the stress of modern life are deterrent to matrimony. Every one can see this in his daily observation. How few men are able properly to marry before they are 35 or 40. But by this time the girl companions of their youth are almost fitted to become grandmothers. We would suggest to Mr. WRIGHT that he should write up the statistics of bachelors—both young and old (if any of the latter can be found). In France a law has been introduced into the Senate to tax all celibates over the age of 30, and all married couples who remain childless after five years. We heartily approve of this plan. Let these people contribute to the support of other people's families if they persist in not having any of their own.

GREATEST ADVANCE IN SCIENCE IN THE NINETEENTH CENTURY.

THE *London Spectator* says that there can be little doubt that nine men out of ten, if asked what was the greatest idea which science had introduced into the world in the nineteenth century, would answer "Evolution." On the whole, we think they would be right. DARWIN holds in the

scientific world of the nineteenth century the place which NEWTON had taken in the seventeenth; with a patience and an insight conjoined only once in an age, he gave a clear and persuasive account of the way in which one step in the great world process of evolution might have come about. The nineteenth century will ever be remembered as the age which established the doctrine of evolution, and Englishmen will be justifiably proud to think it will be coupled to all time with the name of DARWIN. When evolution is mentioned, three other names will immediately occur to one's mind—those of HUXLEY, of SPENCER, and of WALLACE. The publication recently of the "Life of Huxley" has aroused fresh interest in that philosopher, and, considering that he was a member of the medical profession, interest in him and his doings will partake of a somewhat personal nature. If it had not been for HUXLEY's unceasing labors in spreading abroad the Darwinian theory, it is more than likely that evolution would have fallen flat, or at any rate would not have attracted the attention of the general public so quickly and so widely as it has.

By some HUXLEY was known as the "great apostle of evolution;" he termed himself DARWIN's bull-dog, and right ably did he perform bull-dog work in exhibiting and making clear to the man in the street the true interpretation of the "origin of species." For long he had to contend against religious prejudices, and his famous discussion with the late Bishop WILBERFORCE will not be soon forgotten. The Bishop, who was the most witty and eloquent English churchman of his time, and who was commonly known by the not altogether complimentary sobriquet of "Soapy Sam," jeered HUXLEY for endeavoring to propagate so absurd an idea as that of evolution, and wished to know whether it was through his grandfather or his grandmother that he claimed his descent from a monkey, to which HUXLEY retorted: "I asserted, and I repeat, that a man has no reason to be ashamed of having an ape for his grandfather. If there were an ancestor whom I should feel shame in recalling, it would rather be a man—a man of restless and versatile intellect—who, not content with an equivocal success in his own sphere of activity, plunges into scientific questions with which he has no real acquaintance, only to obscure them by a nameless rhetoric and distract the attention of his hearers by eloquent digressions and skilled appeals to religious prejudice." The verdict of posterity upon both DARWIN and HUXLEY among thinking men, irrespective of their theological convictions, will assuredly be that they were scientists of the very first rank who shed lustre on the nineteenth century.

TEACHING OF ANESTHESIA.

THE *Philadelphia Medical Journal* says:—All experienced surgeons realize the great importance of a careful administration of anesthetics, and all physicians at some time during their professional careers are likely to be called upon to administer anesthetics. In spite of the need of experience and of special knowledge for the successful administration of anesthetics, very little attention is paid to the subject in most of our medical schools, and in hardly any, if any, is there an opportunity for gaining a practical knowledge of the subject. Even in England, where professional anesthetists are generally employed, it seems that the attention paid to the subject has not been very great in the past. In a letter to the *Lancet*, November 10, 1900, DUDLEY BUXTON, lecturer on anesthetics in the University College Hospital, London, expresses his satisfaction that more attention is being paid to this subject in the English medical schools than formerly, and emphasises several

important points in this connection. He believes that it is absolutely necessary for students actually to give the anæsthetic under supervision during their instruction, and that physicians and surgeons should recognise the importance of the subject. The students should not only give the anæsthetic, but should examine their patient before and after its administration; they should study any noteworthy differences from the normal, and be taught to make a careful choice of anæsthetic.

The skilful anæsthetist should have sufficient knowledge of medicine to conduct an accurate physical examination, including that of the blood and secretions. His familiarity with surgery should enable him to know what the operator requires, and what will be the effect of the operator's manipulations upon the patient under anæsthesia, and also the requirements as to relaxation of the patient for special operations. His knowledge of anæsthetics should be such that he can adapt the anæsthetic to the necessities of the patient and the requirements of the surgeon. The old days have gone by when anyone, from the house-surgeon to the ward-nurse, can be considered competent to administer anæsthesia, while the operating surgeon "keeps his eye on the patient." The faculties of our medical schools should recognise the tremendous responsibility of the anæsthetist, and the fact that all graduates are likely to be called upon to use anæsthetics and in most cases quite frequently. Lack of knowledge or skill may jeopardize the patient's life and frustrate the surgeon's most skilful endeavors. The facilities for teaching this subject should be increased; it should be made compulsory, and the opportunity for hospital training should be given. In this way the students of the future will graduate much better equipped in a very important requisite than their predecessors have been.

MORTALITY AND MORBIDITY OF PHYSICIANS.

ALFRED MOEGLICH has collected a series of statistics which give results sufficiently discouraging to the medical practitioner who aspires to reach the scriptural age of threescore and ten. Of all the professions, medicine offers its devotees the least promise of a ripe old age, the averages time of death varying from fifty-two to fifty-six years, according to different authorities; while for the clergy, for example, it is ten years later. The combination of pedagogy with medicine appears to be particularly fatal, for one set of figures in which the normal death-rate is represented by 100 gives 111 as the factor for physicians, and 113.8 for medical instructors. Of the causes of death, infectious diseases rank highest, and among these typhoid fever occupies so prominent a place as almost to entitle it to characterization as an occupation disease. Tuberculosis comes next, the death-rate from this cause among physicians being almost double that of the clergy. Altogether it is rather a melancholy fact to realize that the men whose life-work it is to teach others how to keep their health, or to regain it if lost, should themselves be unable to profit by their own knowledge, and should be so completely at the mercy of the great bodily and mental stress to which their calling subjects them.

TO BANISH THE MOSQUITO.

The Medical Record of New York says:—The vastly increased importance to humanity, which the mosquito has assumed during the past year, renders all that pertains to this pest peculiarly interesting at the present time.

While it is not strictly new or novel, it is still noteworthy as being communicated to the State department in Washington by Consul PLUMACHER, of Maracaibo, that the

ricinus communis or castor-oil plant is so distasteful to the insect that it will remain neither about premises where these trees are planted, nor in apartments where the cut branches, leaves, and seeds have been exposed.

Even in cold climates it is said that plants four or five feet in height can be raised from the castor seeds, and under favourable conditions will grow in great profusion. If the personal experience of Consul PLUMACHER in keeping his household free can be duplicated by each future experimenter, sleepful nights and freedom from malaria may still be within the grasp of all who dwell in regions where the tuneful piper loves to exercise his prerogatives.

The castor plant has already done much for man. If this boon is added, we can well afford to toast it in a large bumper of its own oil.

DIABETES MELLITUS IN CHILDREN.

DR. LEOPOLD F.W. HAAS, M.D., in an address to the Section on Diseases of Children at the fifty-first annual meeting of the American Medical Association held at Atlantic City, New Jersey, a report of which appears in the *Journal of the American Medical Association*, referred to the subject of diabetes mellitus in children. We extract the essentials. The etiology of this disease was, owing to its rarity, obscure in children. Heredity played an important part in its causation, while a family history of insanity, phthisis or gout was frequently obtainable. The patients generally belonged to the wealthier classes, and Jews were often the sufferers. The speaker gave the history of two most interesting cases occurring in his own practice, which did not follow the usually fatal course indicated by ROBERT SAUNDY, viz., that "in children and young persons diabetes is an acute and rapidly fatal disease, lasting only weeks or months, or at most one or two years, but cases have been known to extend over five, six or more years." A very few cases had been reported as cured. The speaker's two cases were interesting for several reasons. There was well-marked family history of tuberculosis in both on the maternal and paternal side. In neither could it be said how long sugar had been present in the urine—a fact much to be regretted. In one case there was the history of an injury sustained a year before sugar was first noticed in the urine. Whether this injury had any etiologic significance or not was, of course, uncertain. In the other case there was also a history of pectoris rheumatica, with an eruption, joint pains, fever and a tumultuous action of the heart. It was questionable whether the two affections came on simultaneously, or whether the diabetes existed before the rheumatic attack. The speaker's conclusions were: (1) Diabetes occurs more frequently in children than is generally supposed. (2) Urinalysis is just as important an element in the scientific diagnosis of disease in children as it is in adults. It is to be regretted that the general practitioner rarely realizes this fact. (3) There is a possible etiologic connection between pectoris rheumatica and diabetes. The pathogenesis of both conditions is so obscure, however, that speculation on this question can only point out a direction for further research.

EYE-STRAIN.

DR. W. E. HAMIL, M.D., Toronto, touches on the subject of Eye-strain in the columns of the *Canadian Practitioner*. We summarize. Every organ, it was pointed out, required a certain amount of nerve force, in order that the functions of the organ should be properly carried on, and if the nerve stimulus was interfered with or withdrawn from any

organ, it resulted in erratic and disordered functioning of this organ, causing more or less disturbance in the whole body. This was what happened in the case of the eye. This organ was connected by numerous nerves (wires) with the brain (battery), and in every act of vision, "fixing" of the sight, and movement of the eyeballs, there was a supply of innervation (electricity) needed and used up, and as the eyes during waking hours were constantly receiving images and moving in different directions, it was plain an immense supply of nerve force was required by them every day. The brain was quite equal to the demand, however, in the emmetropic and orthophoric eye: but supposing either ametropia or heterophoria existed, then a disturbance of the nervous equilibrium of the whole body was continuously produced, with the result that from the greater demands of the ametropic or heterophoric eye some organ of the body was likely to suffer, and hence it was not surprising to see stomach, intestinal, heart, lung, ovarian and such like troubles disappear, when the equilibrium was again restored by means of spectacles or prisms. The writer had seen frequent cases of obstinate dyspepsia, constipation, palpitation, asthma, epilepsy, etc., cured entirely simply by means of a proper pair of spectacles. Headaches were especially due to "eye-strain," and probably 80 per cent. of all chronic headaches were due to some form of eye trouble, requiring glasses as the remedy. Surely the time had arrived when every physician should recognize that persistent, oft-repeated headache should be the torch-light to pilot the patient to an oculist, instead of giving them medicine, which was not only usually inefficacious, but absolutely pernicious.

PERSONAL PROTECTION AGAINST MOSQUITOES.

J. A. WEGG, M.D., (*British Medical Journal*), says:—Believing it may be of some interest and value to the members of the British Medical Association who have not given it a trial yet, I wish to record my experiences during the last few months in the use of the ordinary kerosene oil (which is sold here at 4d. a quart) as a simple and inexpensive and reliable means of personal protection against the mosquito. That is readily effected by sprinkling some of it all about the sleeping chamber, or cab in, or bunk, and tying a handkerchief or clean towel nearly saturated on the bedposts, etc., above the head of the occupant, due caution being of course taken not to bring a light too near. We have found it a very excellent adjunct to the mosquito net which is generally recommended and used, and may under certain circumstances fairly become a substitute thereof, where in a way somewhat similar to the method of Dr. STANLEY HAYNES there is no mosquito netting. He, however, used surgical carbolic soap, locally applied to the face, neck, hands, and forearms. I have likewise used a solution of carbolic acid in the same way as above mentioned for kerosene oil, and with great satisfaction. But I prefer the latter agent, because it is not only cheaper, but innocuous—an important point amongst an ignorant and careless population, such as we have to treat here: besides it is fully as effective. I am inclined to believe that the kerosene drives away the mosquitoes, owing to its peculiar penetrating odour overstimulating their olfaction, and causing them to flee from the source of the irritation.

TOO MUCH QUALIFIED.

It appears from an editorial note in the *Medical Press and Circular* that it is possible to be too well fitted for a medical position in Great Britain. In a recent competition for the position of resident house physician at Cardiff, Wales, the rejected candidate showed higher qualification

than his successful rival. When the selection was challenged, it was argued on the part of the medical board who made the choice "that when a man who was head and shoulders above his commanding officer was appointed to a subordinate post, there could be no discipline." In other words, the lack of medical qualification of the superior officer should deprive the institution of the services of any better-qualified employé—the better qualified the worse fitted for the place. The plea that discipline would suffer under such conditions is an admission of executive incompetency or a slur on the loyalty and good faith of the better-qualified candidate, and is contemptible in either case. The fact that the resignation of the medical board was threatened when the directors overruled their rejection of the candidate does not speak well for their professional or scientific morals. Moderation in all things is sometimes good advice, but we never knew it applied especially to professional qualifications before.

JOIN THE INDIAN MEDICAL ASSOCIATION.

Rise! for the day is passing,
And you lie dreaming on;
The others have buckled their armour,
And forth to the fight are gone:
A place in the ranks awaits you,
Each man has some part to play;
The Past and the Future are nothing
In the face of the stern To-day.

Rise from your dreams of the Future—
Of gaining some hard-fought field;
Of storming some airy fortress,
Or bidding some giant yield;
Your future has deeds of glory.
Of honour (God grant it may!)
But your arm will never be stronger,
Or the need so great as To-day.

A. A. PROCTER.

I.M.S. MEN AND PRIVATE PRACTICE: LAHORE COLLEGE PROFESSORS NOW PROHIBITED.

LIEUTENANT-COLONEL, I.M.S., writes to us as follows:—

I have read your article in the *Indian Medical Record* re I.M.S. men and private practice.

"It may strengthen your hands to know that by a recent order—and for the very reasons urged by the *Indian Medical Record*—the Punjab Government have entirely prohibited general private practice to the following professors in the Lahore Medical College:—

The Professor of Chemistry.
" " " Anatomy.
" " " Physiology and Botany.
" " " Pathology and Materia Medica.

These professors are only allowed consulting practice. The Professors of Medicine and Surgery (unless one happens also to be Principal) are, curiously enough, still permitted general practice. I may tell you on the highest possible authority that the Lieutenant-Governor failed absolutely to see the reason of these exceptions; but, as large personal interests were involved, the specious arguments of the Head of the Department succeeded in getting the Lieutenant-Governor to withhold the prohibition in the case of these two men.

Surely if the Lahore professors are not now allowed general private practice on the ground that their public duties are likely to clash with the claims of private practice, the reasoning applies with immensely greater force to the Calcutta men."

Our correspondent continues: "You have but to keep on hammering away for a little while longer, and I.M.S. men will be relegated to their legitimate field of extra-official work—namely, *purely consultative practice*."

We may add in this connection, and for the information of His Honor the Lieutenant-Governor of Bengal, that so conscientious and experienced an officer as Colonel G. BOMFORD, M.D., Lond., I.M.S., Principal of the Calcutta Medical College and Senior Physician to its Hospital, though privileged to engage in *consultative practice*, refuses to do so, on the ground that such work would interfere with his public duties!

INFANT MORTALITY IN BOMBAY.

THE infant mortality in Bombay city is terribly high, and, as Colonel DIMMOCK remarked at a meeting of the Corporation, is a standing disgrace to that body. The mortality returns show that seven infants are born to die each day, in addition to which there is a very high mortality among women during child-birth. Some time ago a Committee of the Corporation, including nearly all the members who belong to the medical profession, was appointed to consider the question, and recommendations were made that the Corporation should engage the services of a skilled midwife for each ward, involving an expenditure of Rs. 8,000 annually. Dr. VIEGAS moved the adoption of the report, but ultimately it was decided merely to record the suggestions of the Committee. There was a long debate on the subject, and it was urged that the great infantile mortality was largely due to the insanitary surroundings in which they were born, and among those urging this view was Dr. ISMAIL JAN MAHOMED. Colonel DIMMOCK and other medical men, however, are of opinion that the chief reason is due to ignorance and unskilful nursing at time of birth.

THE OFFICIATING "PROFESSOR" OF SURGERY IN CALCUTTA.

"PROFESSOR" R. D. MURRAY, of the Calcutta Medical College and Hospital, has left India for eight months, and as no senior I. M. S. man could be found to fill his place, a junior I. M. S. man, in the person of Captain R. BIRD, the Resident Surgeon of the College Hospital, has been appointed to officiate for Dr. MURRAY. There can be no question as to Dr. BIRD's excellent academic qualifications, but there is also similarly no doubt that he is too junior a man for so important and onerous an office, for he lacks experience, and this is a positive disqualification. Things have reached an extreme pitch of helplessness, when the Director-General, I. M. S., fails to find, among the large number of officers in the Government service, one fit in every way to suitably and efficiently fill a vacant surgeoncy in the Calcutta Medical College Hospital.

Just fancy the idiocy of sending both the surgeons of a large public hospital away on leave *together*.

AN APOLOGY FOR LECTURES.

DR. G. V. POORE says:—"Lecturing is not reading. The man who keeps his nose on a manuscript while his audience takes a nap might well be replaced by a phonograph with a text-book in its magazine. The functions of a lecturer are different from those of a text-book. The lecturer has power of selecting his material, and he must be able to keep in touch with his audience. He knows at once when his audience are interested and when they are bored. A lecturer who fails to maintain order in his class has probably mistaken his vocation."

He speaks enthusiastically of the lectures of Sir WILLIAM JENKINS and Professor SHARPEY. But of others which he attended he says, "they proved too soothing even at 9 A.M. Some were thoroughly bad, more incoherent and incomprehensible drivel." He quite candidly asks the reader to interpret the word 'attended' in a 'scholastic' sense!

But even in his opinion "the medical student is still a very much lectured individual."

A PROTEST AGAINST FALSE ECONOMY.

DR. W. G. KING, C.I.E., Sanitary Commissioner, Madras, speaks very plainly on the undesirability of under-paid Sanitary Inspectors:—"It is of the utmost importance that, in making this new effort in sanitary advance, District Boards should not make the irretrievable mistake of lanning upon the people an ill-paid class of subordinates. A class of men of respectable origin can be induced to join by the offer of fair pay, and can maintain that respectability; but it requires but a feeble knowledge of Indian life to know what would be the result of what should be a most valuable movement, if poor pay is to be offered."

SHORT ITEMS AND PERSONALITIES.

An official telegram from Colonel Ternan, dated Afnadu, the 24th instant, states that Lieutenant-Colonel Maitland, I.M.S., was killed in the action of the 16th, together with his syce, and also a number of native troops killed and wounded. Among them were Solomon Aran, 1st class Hospital Assistant.

It is stated that on his retirement from the appointment of Residency Surgeon at Hyderabad, Colonel Lawrie, I.M.S., will be asked to continue as Director of the Nizam's Medical Department.

Mrs. A. E. Edge, I.M.S., who has just been appointed a Fellow of the Bombay University, is the first lady who has been thus honoured in the whole history of the Indian Universities.

The streets of Calcutta, owing to the census operations, presented a remarkable appearance after nine o'clock on Friday evening. With the exception of policemen, not a human being was to be seen. Calcutta seemed to be a city of the dead.

In hip-joint disease the pain first complained of may be on the inner side of the thigh, or above the patella, or in the popliteal space, or about the knee, wherever the terminal branches of the obturator nerve are distributed.

It is understood that leave is to be reopened to officers of the Indian Medical Service in civil or military employ to the extent that officers can be made available to replace absentees.

"I hardly know any more potent cause of disease than alcohol. It is the most destructive agent we are aware of."

SIR WILLIAM GULL, F.R.S.

"It is capable of proof beyond all possibility of question that alcohol in ordinary circumstances does not help work, but is a serious hinderer of work."

SIR ANDREW CLARK, M.D., F.R.C.P.

The Government of India have sanctioned the formation of four additional native field hospitals, and a grant has been made to enable their equipment to be commenced at once.

Captain Hoare, I. M. S., Residency Surgeon, Persian Gulf, has been granted furlough for nine months, and Captain W. J. Grant, I. M. S., officiates.

WANTED—A POST BY AN ASSISTANT SURGEON willing to serve in a Native State in the Railways or any Municipality, &c. Apply V., C/o The Manager.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

Current Medical Literature.

MEDICINE.

Etiology of Stuttering.

MYGIND, of Copenhagen, since the establishment by the Danish Government in 1885 of a course for the treatment of the stutters, has served as the medical member of the national commission appointed to look after the interests of these defectives. During this period he has made a careful examination of two hundred cases of children and young people between six and twenty-five years of age.

The causes of stuttering the author divides into the customary classification of remote or disposing, and immediate. Under the disposing causes he gives consideration to: (a) The influence of sex; (b) the influence of age; (c) heredity; (d) certain diseases of the nose, nasopharynx, and pharynx; (e) certain constitutional diseases; and (f) finally, a few other remote conditions having an etiologic influence. Under active causes he cites: (1) The so-called psychical infection (contagium morale); (2) the infectious diseases; (3) trauma; and (4) certain psychical influences.

It is an old and well known fact that a large percentage of stutters are of the male sex. GUTZMANN, in examining school children, found that seventy per cent. of the stutters were boys; among adult stutters, that ninety per cent. were males. MYGIND's cases showed eighty-five per cent. of males. The age at which the speech defect was first noticed was in most cases before the sixth year—that is, during the period that speech would naturally be acquired. He noticed, however, that stutters learned to speak, as a rule, much later than children free from speech defect.

Heredity plays a not unimportant rôle. No less than 85 of the 200 cases—that is, forty-two per cent.—had relatives who were at the time, or had previously been, stutters. In fifteen cases there was mental disease among the pupils' relatives. Five of the pupils had idiotic relatives. Epilepsy was noted among the relatives of thirty-two pupils. Various other unclassified neuroses were present among the relatives of twenty-nine per cent. of the pupils.

MYGIND found, with others who have studied similar cases, that stutters very frequently suffer from some pathological condition in the nose or pharynx. Adenoid vegetations were especially common, being observed in thirty-nine per cent. Psychical infection could be traced in thirteen per cent.—that is, they became stutters through direct association with other stutters. A few cases seemed to arise from other psychical causes, such as fright and the nervous disturbance naturally caused in a child during its first weeks at school.

In conclusion, the writer lays considerable stress upon the signs of nervous degeneracy to be noted among stutters and their relatives, which he regards as a very potent etiological factor in the production of this speech defect.—*Med. Age.*

Hæmaturia attending Tuberculosis of the Kidney.

NEWMAN (*Lancet*) points out that hæmorrhage from the kidney occurs: (1) In consequence of injury, independently of any pre-existing tuberculous lesion, the effused blood or injured tissues forming a nidus for tuberculous infection; (2) as a premonitory symptom of tuberculous disease long antecedent to the development of a gross renal lesion; and (3) in consequence of destructive tuberculous processes in the pelves or the parenchyma of the kidney. He reports cases illustrative of each of these varieties of hæmaturia. The following method for detecting tubercle bacilli in suspected urine is recommended: A quantity of urine is permitted to stand in a conical glass in a cold place for not more than six hours, and from the deposit a small quantity

of debris is selected and placed in a glass of 0.75 per cent. salt solution. The deposit is, however, obtained more rapidly and more reliably by centrifugation, which should always be resorted to when the number of bacilli is supposed to be small, or when the urine contains much mucous or blood. When the mucous is considerable, it may be necessary first to render the urine slightly alkaline. A small amount of the sediment is placed on a cover slip and spread in a thin layer by pressure through a second cover slip. The slips are dried in the air, and they may be more firmly fixed over a spirit lamp or in front of a fire. They are then placed in, or floated, face downward, upon a solution of aniline magenta or of gentian violet. Decolorization is effected by passing the cover slip through a twenty-five per cent. solution of nitric acid, and then washing in water. Tubercle bacilli are cultivable from urine only with difficulty. Their presence may further be demonstrated by animal inoculation. When the existence of tuberculosis has been demonstrated, it is important to determine whether one or both kidneys are affected. This may be done by catheterization of each ureter separately, and an individual study of the secretion from the corresponding organ.

Filarial Origin of Elephantiasis.

DANIELS believes in the filarial origin of elephantiasis. In support of this view he calls attention to the fact that the filaria nocturna and elephantiasis have the same geographic distribution. As to the question of racial incidence, his investigations show that while some races are rarely attacked, in others elephantiasis is common, and that among the natives the women are more frequently attacked. In filarial disease the relative incidence varies in the same manner as the incidence of elephantiasis. This strengthens the view of the dependence of the one upon the other. The cause of difference in the racial incidence depends: (1) On the presence of the infected primary hosts; (2) on suitable intermediate hosts; (3) on the water-supply, in connection with which storage in small receptacles is practised, allowing of the ready deposit and concentration of the intermediate hosts, with their embryonic contents. In reference to the pathology of the lymphatic obstruction, evidence is adduced to show that the parent worm can cause obstruction by exciting hæmorrhage, or frequent attacks of lymphangitis, or that the embryos may be discharged into the lymph-stream while in their egg-capsules, in which case they would from their size be stopped at the next lymphatic gland, and thus cause obstruction. As to the variety of forms of filarial disease in Guiana, the regions of the body attacked are much the same as in other countries where elephantiasis is common.—*Phil. Med. Jour.*

On Intermittent Pulse.

ARTHUR B. CUSHNY believes that intermissions of the pulse may be divided into several classes: (1) True ventricular intermissions, in which the pause is exactly equal to two pulse intervals, and during which there is no cardiac sound; (2) true auricular intermissions, in which the pause is shorter than two pulse intervals, and during which there is no cardiac sound; (3) false ventricular intermissions, in which the pause is equal to two pulse intervals, but is often interrupted by a slight elevation; (4) false auricular intermissions, in which the pause is shorter than two pulse intervals; (5) another form which has been described by WENCKEBACH. The treatment of cardiac disease may be rendered more exact by the careful examination of the pulse, which may indicate whether the existing condition is that of excessive irritability or of deficient activity.

SURGERY.**Otitis of the Exanthemata.**

J. HENRY FRUITNIGHT (*Medical News*) says:—In personal experience, covering a quarter of a century and embracing nearly five thousand cases of the exanthemata, especially scarlet fever and measles, otitis media has been met with as the most frequent of the various complications which may occur during the course of the exanthemata. If the attack be treated immediately upon its appearance, it is not necessary to call in the aid of an otologist. First, it is extremely important that scrupulous attention be given to the active treatment of the nose and throat in these cases, for thereby an attack of otitis is very often prevented. In regard to the question of paracentesis tympani, it is not always necessary to incise the drum-membrane. If, however, on inspection it is found that the tympanum is projecting and is highly congested, and the patient is frantic with pain, then the membrane should be incised to relieve the engorged blood-vessels. The effort, however, should always be made to abort the attack and to hinder suppuration and perforation. Those patients who are subjects of a constitutional taint, and in whom the otitis has been left untreated and allowed to go on to perforation, are very apt not to get well, but become chronic cases and lose their audition. For the accompanying otorrhoea, the following plan of treatment has been found valuable: First, 5 drops of peroxide of hydrogen are instilled in the ear; after a few minutes this is flushed out with lukewarm water until the water returns clear, free from all turbidity; the canal is then carefully dried out with pledgets of absorbent cotton. Then 3 drops of an alcoholic solution of boric acid are put in the ear and allowed to remain there. The strength of this solution is from 5 to 10 grains to the ounce of alcohol. In most cases this treatment has been successful in checking the purulent or sero-purulent discharges, though the nurse is cautioned that the treatment must not be discontinued so long as there is a vestige of the discharge.

Radical Cure of Hydrocele.

DR. ORVILLE HORWITZ, in *Journal of Cutaneous and Genito-Urinary Disease*, says:—Incision with partial removal of the sac is to be resorted to when the sac is found to be thickened, or where it protrudes far into the inguinal canal. A modification of this operation is suggested, which, it is believed, will greatly simplify the usual procedure. It is performed by making a free incision over the long axis of the tumour, dividing the structures down to the sac, at the same time being careful not to open it. By means of an ALLIS's dry dissector, the scrotal tissues are quickly separated from the tunic, which is left slightly adherent posteriorly; this being the portion of the sac which covers the cord and is not disturbed. The sac is then made tense, fixed by means of a tenaculum, opened by a touch of the knife, and the fluid allowed to escape. The sac, having been thoroughly dissected from the scrotal tissues, is removed in a single piece by means of the curved scissors. The bleeding vessels are ligated and the wound dried. Should there be much hemorrhage from the edges of the cut sac, it must be controlled by a continuous suture passing completely over the margin. The portion of the tunica vaginalis lying over the cord is swabbed with carbolic acid, the wound irrigated with 1 to 1000 bichloride solution, a small drainage tube inserted, and the parts closed by silk-worm-gut sutures. An antiseptic dressing is then applied. The drainage tube is removed after twenty-four hours; the sutures after the seventh day.

Unrecognized Syphilis in an Infant: Infection of the Nurse: Multiple Chancres of the Breasts.

DANLOS describes the case of a healthy woman who became wet-nurse to a premature infant eight days old, apparently well. Within three weeks the child showed all the symptoms of a severe congenital syphilis, and died a week later. Eight days after the baby's death the nurse had one chancre on the left breast, and twenty-one ulcerating sores, indurated and round, on the right. In the right axilla the lymph-nodes were indolently enlarged. The mouth and genitals were normal, and the woman never had any generalized eruption, but severe headaches at night and malaise. While chancres of the breast are usually multiple, it is rare to find them so numerous as in this case. The parents of the baby denied all history of syphilis, but the lesions in both child and nurse were unmistakable.—*Archives of Pediatrics*.

Submersion in the Treatment of Wounds.

THE use of the hot bath in poisoned wounds, to which attention has recently been called by FRASER, is here noticed by HODGES, who claims that he has been the only American advocate of the treatment since the publication of Dr. FRANK HAMILTON over twenty-five years ago. His extensive experience with the procedure, he claims, warrants the following practical conclusions: (1) Continuous submersion even for long periods—two or three months if necessary—is altogether harmless. (2) That it may be easily secured anywhere by anybody possessing an ordinary degree of ingenuity. (3) It will almost instantly limit infectious gangrene and control the resulting septicemia and pyæmia. (4) It will quickly relieve the pain and discomfort of phlegmonous inflammation or cellulitis. (5) It will speedily and readily reduce temperature and pulse and overcome the consequent depression of the patient's vital forces. (6) The temperature of the bath is immaterial, except when below that of the room, it more promptly reduces fever, and many bacteria will not develop at this temperature, while such as do so, develop less vigorously than at a slightly higher temperature.

Seminal Vesiculitis.

IMPOTENCE, according to GUTESBAS, is largely due to inflammation of the seminal vesicles, though there may be other predisposing causes such as chronic inflammation of posterior urethra, chronic prostatitis, varicocele, etc. He reports cases illustrating his views and the treatment of the condition, which is a sedative one, at first avoiding anything that is stimulating or exciting in the sexual sphere, with internal remedies to neutralize the urine in case of over-acidity. He uses rectal irrigation every night, with normal salt solution or strained flaxseed at a temperature of 105 to 120°F., by means of the double-current rectogenital tube and massage of the internal genitals every five days, followed immediately by urethral irrigation whenever there is chronic prostatitis and posterior urethritis associated with the condition. After the irritation and inflammation have been removed, stimulation by drugs, electricity, and regulation of hygiene is employed.

OBSTETRICS AND GYNECOLOGY.**Prevention of Puerperal Septicæmia.**

DR. H. G. WETHERILL, (*Colorado Medical Journal*), says:—(1) When labor is about to begin, or as soon after as possible, one or more enemas of soap and water are to be given till the rectum is quite empty; then (2) the patient is to have a warm soap bath—in a bath tub if one be available—particular attention being given to the cleaning of the external genitals and anus and the creases and folds of the skin about the groins, abdomen, buttocks, and thighs. (3) The external genitals are then to be washed with a solution of bichloride of mercury 1:1000, or of lysol 1:100, to be followed by clean, warm, boiled water. (4) A clean, dry, absorbent occlusion pad is now to be applied to the vulva, and, when possible, this should have been sterilized. (5) Clean washable clothing may be put on the patient, and a clean, properly protected bed is to be made ready for her. (6) After the patient has been prepared she must not use the water closet when the bowels or bladder are evacuated, but should use a clean chamber vessel, or jar, or a bed-pan. (7) After each evacuation the external genitals must be cleansed as before (No. 3) and a fresh occlusion pad must be put on. (Vulva pads are best made of cotton and gauze, and should be made and handled with clean hands only, and placed in clean receptacles. They may be burned when soiled).

Diagnosis of Ectopic Pregnancy.

DR. J. F. BALDWIN (*Courier of Medicine*) says:—There are no pathognomonic symptom of tubal pregnancy, or of any other form of ectopic pregnancy. Usually, however, we find the following points: The patient gives a history of several years of sterility (many exceptions); she has missed a menstrual period, perhaps two of them (numerous exceptions); she has noticed some unusual pains in the pelvis, which she will probably describe as boring, griping, or colicky in character, these pains being situated usually in the region of an ovary; she has, perhaps, within a few days of the time of consulting her physician had a more or less irregular hæmorrhage: perhaps has discharged pieces of membrane which she supposed indicated an abortion, and consulted her physician with the idea that such is the case, owing to the hæmorrhage and the pain, and the suspicion of an existing pregnancy. Possibly, however, there has been no suspicion of a pregnancy, as the woman has accepted her sterility as incurable and has dismissed from her mind such a possibility.

Treatment of Abortion.

H. B. STEHMAN, in *Medicine*, states the following principles in treatment of abortion and its complications:—

1. The rendering of the vulva, vagina, and uterus aseptic, and as far as possible maintaining them in that condition.
2. Arresting hæmorrhage, either by the use of the tampon in the cervix or vagina, or by directly emptying the uterus.
3. In inevitable abortion, the ovum, or any part of the product of conception, should be removed as early as possible.
4. That intelligent curettage is invariably indicated whenever a vestige of placental decidua remains, or any suspicion of infection is evident, and that a bacteriologic differentiation is necessary, both from the standpoint of prognosis and treatment.
5. When circumscribed local infection is a complication, evacuate the pus as early as possible and by the shortest route.

Hysterectomy in Puerperal Fever.

JORFIDA reports two successful cases of total vaginal hysterectomy for puerperal infection. Out of the 85 cases hitherto recorded 22 have recovered; as far as the figures go, it seems that vaginal hysterectomy is more fatal than abdominal. The first case was that of a woman, aged 37, multiparous, who was prematurely (six months) confined on January 17th, 1899. On the third day she went to work in the fields and was seized with severe pain. She was admitted into hospital, January 27th, with diarrhoea, vomiting, severe pain and fever, and in a partially typhoid state. The uterus was soft and tender, and had hardly undergone any involution. Endouterine sublimate douches were given. On January 31st the uterus was curetted. As no improvement followed, total vaginal hysterectomy was performed on February 1st. The patient left the hospital completely cured on March 3rd, 1899, and when last seen (September 1899) was in the best of health. The adnexa, which were secondarily infected, were at the same time removed. The second case was similar to the above; the woman left the hospital cured forty-six days after the operation.—*Brit. Med. Jour.*

Prolapse in Elderly Women.

In 1896, two new procedures were shown as remedies for prolapse in elderly women. One by FÆRUD relieved the prolapse in non-menstruating women by drawing downward the uterus and stitching it to the vagina, the secretions being discharged through a new opening in the fundus. In the same year WORMSER published a procedure by P. MULLER, in which the prolapse was remedied by excision of the vagina and the inclusion of the uterus, and reported many cases thus treated with good results. STOCKER, fearing that hydrometra might develop in the uterus thus devoid of any external passage, devised a modification of the method adapted to elderly women who still menstruated. He reports the case of a patient, aged 52, describes the operation, the first step of which was to make a long incision in the left side of the vaginal portio. The edges of this wound were stitched with catgut, uniting the mucous membrane with that of the cervical canal. Then a strip of the vaginal mucous membrane on the left side, about 5 cm. broad, was allowed to remain, all the rest was removed and the denuded surfaces united with sutures, thus leaving a very small passage for the discharge of all secretions. This operation was quickly and easily performed, and the results very satisfactory.—*Phil. Med. Jour.*

Implantation after Injury of Ureter During Laparotomy.

N. FENOMENOFF relates, in a Russian journal quoted by the *Sov. Med.*, that he had the misfortune to excise a small portion of one ureter during a tedious operation for removal of cystic tumors in the broad ligament. Instead of suturing the ureter to the abdominal wound and ablating the kidney later, he resolved to excise the kidney at once, as *restitutio ad integrum* was impossible. He, therefore, drew the proximal stump of the ureter down as far as possible to prevent a diverticulum, and threw two ligatures around it, then replaced it in its normal position and sutured the abdominal wound, draining through the vagina. The patient made an uninterrupted recovery, complaining merely of a few dull pains at times in the lumbar region at first. She left the hospital in a month, and during the year since the operation has been in good health, with no indication of abnormal function even on analysis of the urine.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Theory of the Physiology of Spinal Anæsthesia.

H. H. STONER (*Medical News*) states that the term "medullary narcosis" is misleading, since it gives the impression that the injection is made into the substance of the cord, whereas in reality the solution is thrown into the subarachnoid cavity some distance below the termination of the spinal cord. The most plausible theory as to the way in which the poison gains access to the cell-bodies is that the axons, occupying the cavity into which the solution is thrown, absorb it and transfer it by way of their vascular supply back to the cell. It is noteworthy that the neurons most profoundly affected by the solution are those that go to make up the cauda equina. The motor neurons, the axons of which pass through the cauda equina, apparently go on performing their function of transmitting motor impulses unimpaired of the presence of the toxic agent. It must not be supposed that these neurons are unaffected by the solution. The cytological structure of their cells undergoes the same morbid change as do those of the sensory neurons, but owing to the direction of the motor current and the relation of the end plates of the peripheral motor neurons to the muscle fibres, their capacity for transmitting motor stimuli to their destination in the muscle is not seriously handicapped. Stimuli over the sensory tract are prevented from reaching their destination, owing to paralysis and withdrawal of the arborizing extremity of the peripheral sensory neuron from contact with its associated one, but in the case of the peripheral motor neuron no such effect takes place. The solution paralyses the arborizing processes of this collateral branch as well as those of the ascending branch, and such being the case, it is withdrawn from functional relation to the peripheral motor neuron, and reflex activities are thereby inhibited.

Bowel Lesion of Typhoid Fever.

Dr. T. J. MACLAGAN says:—"The points to be noted in connection with the bowel lesion are: (1) That the structure on which the typhoid bacillus exercises its specific effects are the solitary and agminated glands situated in the submucous coat of the small intestine. (2) That the change which it causes in these glands is inflammatory in nature and essentially consists in proliferation of their cellular and granular contents, with consequent swelling and hardening of the glands. (3) That this inflammation is generally sufficiently severe to cause gangrene and sloughing of the affected glands. (4) That the direct action of the typhoid bacillus is limited to the glands of the submucous coat, and that it has no direct action on the mucous, muscular, or peritoneal coats. (5) That the sloughing process that destroys the glands necessarily also destroys the mucous membrane situated over them. (6) That with the process of sloughing and suppuration there come into play other and new morbid agencies, the various forms of coöcal associated with these processes. (7) That to these new agencies, rather than to the typhoid bacillus, are to be attributed all the more serious complications and all the formidable symptoms, general as well as local, which are apt to show themselves during the third and fourth weeks of the disease."

Pathology of Hepatic Cirrhosis.

From a study of the tissue formation in cases of cirrhosis of the liver, FLAXMAN comes to the following conclusions: (1) In all forms of cirrhosis the white fibrous tissue is increased. (2) Along with the increase of white fibrous tissue there is a new formation of elastic tissue, which is derived from pre-existing tissue in the adventitia of blood vessels and the hepatic capsules. (3) Both white fibrous tissue and elastic tissue, in all forms of cirrhosis, may penetrate into the lobules. This penetration takes place along the line of capillary walls, or follows the architecture of the reticulum. The chief distinctions between the histology of atrophic and hypertrophic cirrhosis depend upon the degree of extralobular growth and the freedom with which the lobules are invaded. In hypertrophic cirrhosis there would appear to be less interlobular growth and an earlier and finer intralobular growth. (4) The alterations in the reticulum, *per se*, consist, as far as can be made out at present,

of hypertrophy rather than hyperplasia of the fibres. It is still uncertain whether any of the differential methods now in use suffice to distinguish between the reticulum and certain fibres derived from the white fibrous tissue of the periphery of the lobules.

Bacillus Coli Communis.

THERE are at the present time numerous workers who are devoting themselves to the special study of one or other of the great classes of bacteria. Some five years ago it was the fashion to multiply the number of the members of a group, giving to each individual member which showed cultural differences a distinct name, irrespective of the genus to which it belonged, the name only indicating the class. The investigation of cultural reactions and pleomorphism in its various aspects is no less keen at the present moment—it is even intensified—but the prevailing tendency is to recognise the existence of genera, with a prototype at the head, each genus being divided into species with their respective varieties. Chief among the genera is the great "colon group," the principal class of intestinal and extraintestinal bacteria. Standing first and foremost as prototype, partly by reason of its ubiquity, partly on account of its multifarious activities, is the *B. coli communis*, and following this in the same species is a lengthy list of coli-like organisms, while the other subdivisions of the group are the hog-cholera or GABRIEL species, the typhoid species, and lastly, the species of which the pneumo-bacillus of FRIEDLANDER may be taken as the type. Each of these species contains many varieties; even the typhoid group, of which the individual members show the least variation culturally, contains variants which the serum test differentiates. Dr. W. W. FORD, who is Fellow in Pathology of McGill University, has published a paper in the *Montreal Medical Journal*, at the end of which he has set out in tabular form a list of the cultural reactions of many members of the group. Though the various reactions enumerated do not exhaust the cultural distinctions which it is possible to obtain, yet a study of it, incomplete as it is, shows the importance of testing each organism in a variety of media and under differing circumstances with a completeness undreamt of twenty years ago, in order to identify the exact nature of the organism with which one is dealing. From the same author we have also lately received a paper embodying the result of some work on the bacterial content of healthy organs removed with due observance of aseptic precautions. His results are at variance with those of NEUMER and OPITZ, both of whom concluded, from the results of their experiments, that in the healthy animal a passage of bacteria through the intestinal wall does not take place. Dr. FORD obtained results of precisely opposite character, and this he attributes to the fact that his cultures were incubated for much longer periods than were used by either NEUMER or OPITZ, and were in most cases made in liquid media, which he considers a point of importance by reason of the dilution of animal bactericidal properties. As a result of a large number of experiments, he found that each species of animal possesses its own peculiar bacterial flora; whilst each animal, regardless of its species, showed its distinct bacteriology. Thirdly, the different organs of the various animals displayed the same bacteria on the different culture media. Fourthly, the condition of digestion exerted a decided, but not universal, influence on the species of bacteria found; and lastly, while many cultures remained sterile, there was ample microscopic evidence of bacterial activity within the organs inoculated into the culture medium.—*British Medical Journal*.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Hygiene of the Cyclist.

JUST LUCAS CHAMPIONNIERE states that cycling, like all exercise, should be taken up moderately. The heart should be carefully watched, not because this exercise is more harmful in this respect than others, but because it can be indulged in much longer without giving a sense of fatigue. Vicious attitudes, such as a crooked posture, although not being so important as is generally supposed, nevertheless ought to be avoided. In a long journey the position in which the body is moderately inclined is best for the organs of respiration and circulation. The position in the saddle is hard to decide upon for every case. Practice shows that the perineum accommodates itself to the saddle better than would have been supposed. Moderation in eating is a necessity in muscular work, as is also abstinence from alcohol. The bicycle should vary in details for the man, the woman, the child, the racer, and the invalid. In the case of a man, the perineum, with its component parts, should be carefully watched. As to the woman, this exercise is easier for her than for the man, since she is more supple. It causes far less fatigue than walking. Its effects on the pelvic organs are good. The exercise should be suspended during menstruation, and it is not to be recommended during pregnancy. The child does not feel so much fatigue as the adult, but it should use the bicycle with the greatest moderation. As a rider, the courier understands his limitations well. He should, like all athletes, possess perfect organs. As to the invalid, many ailments are improved or even cured by the use of the bicycle, e.g., gastro-intestinal troubles, deformities of the vertebral column, etc. Indeed, the author believes that this branch of the subject is so extensive as to deserve a special chapter.—*Gazette Médicale de Strasbourg.*

Banana Flour.

AMONG the thousands of intelligent men of various castes and creeds who live by the products of cocoanut and other plantations, it is curious that so little is heard of the manufacture of farina from the banana or plantain. The Colonial Institute of Marseilles, in reply to an inquiry made by the Colonial Office, gives some very interesting information on banana flour. This flour is used by the Creoles in Guiana, under the name of "conquénay," as food for invalids and infants. In the East Indies and the Malayan Archipelagoes it has been used for a long time past. In Central America, in Colombia and Venezuela banana flour is made on a vast scale and sent to the United States. Trials have been made, but without great success, in German West Africa and at Perak in the Peninsula of Malacca, in order to extend its preparation and importation into Europe. It is prepared in a very simple manner. The bananas are cut into round slices and put into a drying apparatus made of aluminium or silver. The banana flour, which is very nutritious, has been analysed by Dr. RHOMS, of Berlin University. It contains 1.455 per cent. of azotite, also 12.06 per cent. of starch, cane sugar 1.84, and tannin 6.53. A certain quantity is sent to England, where the price of 675 francs per ton of 2,240 English pounds is paid. Banana flour is certainly a production which has a future. The day may perhaps come when it will occupy the front rank in the food of the public.

The precautions used in drying the fruit are due to the readiness with which it takes a stain from metals when fresh. Sheet aluminium is now cheap enough in India to be used for lining iron pans of drying machines that may be made to pattern by any sheet iron worker, and heated with charcoal. Much of the drying might be done by the sun's heat, a fine net being put over the trays. The fibre of the plantain would be another source of revenue if separated from its juices by one of the many also fibre machines and well washed and dried. The industry may be started on the smallest scale and with the simplest appliances. Clean flat tiles would make an excellent drying floor; the darker the colour of the tiles, the hotter they will become in the sun. As the plantain requires rich soil for its full development, a sewage farm would offer the best prospects of success.

Action at Law on Food-Poisoning.

A CERTAIN Mr. SMITH and his wife brought an action against the Inns of Court Hotel, Ltd., London, to recover damage for injuries suffered by them. It appeared that 91 persons were dining one evening at the table d'hôte dinner at the above hotel on 17th of July of last year, of whom 39, including the plaintiffs, were more or less poisoned. They had all eaten either mutton or fish, and they were all poisoned by ptomaines. Two of the 39 had died. At the trial the jury gave a verdict for £140 damages. The defendants appealed, but the Court unanimously rejected the application. Lord Justice A. L. SMITH said: "If the case made out by plaintiffs in an action of negligence was equally consistent with the defendants having been guilty of negligence and with his having acted with due care, then there was no case to go to the jury. But in this case, where 39 persons out of 91 who partook of a particular meal were poisoned in a similar manner, he had to ask himself whether that state of facts was more consistent with there having been a proper examination of the food on the part of the persons who supplied it, or with there not having been a proper examination."

The learned Judge thought the state of facts was more consistent with there having been an improper examination; and Mr. Justice GRANTHAM had acted rightly in leaving the matter to the jury, and not accepting the suggestion of defendants' counsel that there was no case to go to the jury. He thought that seeing that the quantity of poison supplied in the food was large, it might have been detected had a reasonably careful examination been made. The jury had on the medical evidence reasonably found that there was a want of proper care. Both contentions for appellant failed, and the application for a new trial or verdict for defendants must be refused.

Food-poisoning is very common in India, not necessarily with fatal results, but it is sufficiently frequent to demand a regular inspection on the part of health authorities into the state of the kitchens of hotels, boarding houses, and railway refreshment rooms.—*The Indian Municipal Journal and Sanitary Record.*

Human and Other Mammalian Blood.

THE distinction between human blood and that of other mammals has been based upon the size of the red corpuscles, and it has been found that they have not been altogether reliable. A new method proposed by WALKER is based, first, on the morphologic and microchemic characters of the granules of the polymorphonuclear leucocytes; and second, on the ability to recognize these conditions in the dried blood. It is well known that leucocytes of the human blood contain granules that are brought out by special staining methods. Disregarding the "mastocells," these granules are of two kinds, differing in size and staining properties. About 97 per cent. of the polymorphonuclear leucocytes contain numerous, minute, irregular granules which stain in neither basic nor acid stain, but only with certain combination stains like EMBLION's "triacid," and are therefore called neutrophils. The remaining 3 per cent. contain large spherical uniform granules that stain only with the acid stains—acidophiles. Of the other mammals, apes are said to show neutrophils, but all other species contain only acidophiles and non-granuliferous leucocytes. He describes the condition in different animals, and gives a table showing the staining reactions of the granules in a number of species.

THERAPEUTICS & PHARMACOLOGY.

Intraspinal Injection of Cocaine.

THE success which has attended the intraspinal injection of cocaine for the purpose of producing analgesia of the lower part of the body led GORFE to use it in a case of abdominal hysterectomy which he believes is the first instance of the kind on record. The patient was a woman of 51, suffering from hemorrhages due to multiple fibroids. One-third of a grain of cocaine was injected in the third lumbar space; but as the analgesia was imperfect, 15 minutes later the needle was inserted in the second lumbar space, 22 drops of spinal fluid were allowed to escape and $\frac{1}{4}$ of a grain injected. Analgesia promptly appeared, reaching above the umbilicus. The operation occupied 40 minutes, and the recovery from the cocaine came so promptly that the last manipulations, the removal of sponges from the abdominal cavity and sewing of the wound, gave occasional twinges of pain. There was some nausea, vomiting, and headache afterward, the vomiting recurring on the second day. Aside from this the recovery was uneventful. GORFE says that what remote consequences may develop as the result of such interference with the spinal fluid as this method involves can only be determined after more prolonged observation; but up to the present time no detriment to patient has attended the procedure, although observations have extended over a period of two years.

Treatment of Pneumonia.

WALTON advises the avoidance of exposure to other cases, confining of the patient to bed, avoiding all unnecessary exertion of any kind, the use of white flannel clothing, one or more daily spongings with tepid water and vinegar, and a diet consisting of milk, soups, lemonade, etc. In a robust patient, at an early stage the lancet will sometimes cut short the disease, and a brisk purge and one or two large doses of quinine may be of value. The drug he most depends on is NONWOOD'S tincture of veratrum viride, 2 to 4 minims every two hours or oftener, watching its effect on the pulse and bringing it down to 70 or 80 and holding it there. He has never seen any untoward effects, and if the treatment fails to arrest the disease, it makes it milder and more easy to manage. If it goes into the second stage, give ammonium carbonate 5 grains every two hours as a stimulant and absorbent. Strychnia is the best stimulant and tonic we have, and should be used freely when indicated. Digitalis is of service when the pulse is weak and rapid. Transfusion of normal salt solution should be used in bad cases and opiates to relieve pain if necessary.—*Virginia Medical Semi-Monthly.*

Winslow's Soothing Syrup.

TAKE of—

Morphia sulph	...	...	...	$\frac{1}{2}$ gr.
Sodii carb	...	...	...	1 gr.
Simp. syrup	...	...	...	1 $\frac{1}{2}$ oz.
Aqua	...	...	...	$\frac{1}{2}$ oz.
Spirit feniculi	...	...	...	1 dr.

—New Idea.

For Pyrosis.

Two following pill is useful:—

R	Zinc oxid	...	...	2 $\frac{1}{2}$ grains.
	Powdered opium	...	...	$\frac{1}{2}$ grain.
	Extract of hyocyamus	...	...	2 grains.

M.

For Treatment of Corns.

R	Extract of cannabis indica	...	...	1
	Salicylic acid	...	...	10
	Oil of turpentine	...	...	5
	Glacial acetic acid	...	...	2
	Cocaine (alkaloidal)	...	...	2
	Collodion	...	...	q. s. ad. 100

M. Apply a thin coating every night, putting each coating on top of the preceding one, until finally the whole drops off, bringing the indurated portion, and frequently the whole corn, with it.

For Cerebral Congestion.

THE following has been highly recommended:—

R	Potassium bromide	...	...	3 drachms.
	Fluid extract of ergot	...	...	2 "
	Water	...	...	to 6 ounces.

M.

One tablespoonful to be taken three times daily. This mixture has been found serviceable as a prophylactic after severe head injuries.

Correspondence.

UNPOPULARITY OF THE MILITARY HOSPITAL
ASSISTANT CLASS OF THE SUBORDINATE
SERVICE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—There is a circular from the Principal Medical Officer, Bombay Command, inquiring from senior Hospital Assistants of the Bombay Presidency of causes which have made the subordinate branch of the Hospital Assistant class so very unpopular that, though there are some fifty vacancies at present in the service, no candidates are forthcoming to join it.

May I take this opportunity, through your valuable paper, to bring to the notice of the authorities that, so far as pay and prospects are concerned, there is very little difference between the Civil and the Military service of the Hospital Assistant class, except a senior Hospital Assistantship in the latter service on a salary of Rs. 100 per mensem, which could not be considered more remunerative, taking into account the inconveniences, difficulties, and dangers one has to encounter in the Military Department than his brother in the Civil one, who has more or less an easy life, free from bothers and dangers of battlefield, etc., and mostly passes his period of service in his own town or district.

Besides, Hospital Assistants in the Military Department have the same kind of duties and responsibilities in connection with native troops that Assistant Surgeons have in connection with British troops. Both these subordinate branches of the military service have the same collegiate course of study and the same dangers and difficulties to encounter in peace or war. Consequently, justice would demand that both branches should have equal pay and prospects. But, notwithstanding this, Assistant Surgeons are far more better paid than Hospital Assistants.

If the authorities are bent upon removing all grievances and dissatisfaction for good, and make the branch a really attractive one, I beg to suggest that status, leave, pension, promotions and allowances and other concessions of the Hospital Assistant class should be just on equal footing with that of the Assistant Surgeon class, and pay of the former in every grade, from top to bottom, may be 50 per cent. less than that of the latter, owing to crime of their color.

I think this is a just and fair demand, and I trust, as the authorities have now come to recognize that the Military Hospital Assistants have real grievances which have made the branch so very unpopular, your able pleading and support will shortly bear some good fruits.

Yours, &c.,
J. M. P.

SOMETHING MORE ABOUT CIVIL ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your issues of the 13th and 20th February contain "TOMTIT, M.B.'s" reply to "LIEUTENANT-COLONEL, I. M. S.," with regard to Civil Assistant Surgeons. Lord! hasn't the "little bird allowed himself to be drawn?"

It is naturally presumed that he defends the class from personal interest, and his advocacy is for "locally educated" men. He admits the superiority of *all* classes of medical men who obtain English diplomas, and pits the "locally educated" civil man against the military one who has not qualified in England. It is natural to assume also that the "little, TOMTIT" is a locally educated man too. Here is a man who, under the freedom of the English flag, has been educated for a nominal sum in one of the local colleges by I. M. S. officers, and who, on obtaining his *ead* (a local degree), turns on that Government, accusing it of "color blindness," "favouritism," and negligence in not "properly training" "native Assistant Surgeons! He has been so well drawn as to show the leper's skin under the thin veneer. His bitter opposition to Military Assistant Surgeons, his depreciation of them by comparison, his highly-exalted opinion of his own class, and the false ideas of Government and I. M. S. officers "being frightened by the very mention of a simultaneous I. M. S. examination," prove what is to be expected of men of his thought and class. He is quite right about there being "always two opinions" regarding the designation of military men as Assistant Surgeons; but it is always to be remembered that the value of an opinion depends upon its source. Government holds its own opinion, and "TOMTIT, M.B.," and men of his clique, hold theirs; but the issue of judgment does not lay with the latter, thank heaven!

"TOMTIT" wants his class to be Civil Surgeons of Districts and Superintendents of Jails. The former has been given to some of them, and his own admission is that some are unfit. They have been tried as Superintendents of Jails when having over ten years' service, and have proved failures.

It is a pity he has not gone in for an I. M. S. commission himself; if he did, we would have him complaining that he was not made an Inspector-General of Hospitals, or an Inspector-General of Prisons; that would be "color blindness" too and "favouritism." Government will "not allow Indian youths to compete for Military Assistant Surgeoncies," he says, because they are "feared." Great Scott!! would not I like to see "TOMTIT, M.B.," and others of his class, in a Military Station Hospital! Lord! would it not be fun to see them among the "Tommies!" There would be "fear" then, I am sure—tailor and shoemaker would soon meet, and there would be discipline! The fact is, Sir, Government has been too liberal in allowing natives to be educated to the extent that has been permitted, for we find that race feeling is not lost; most of them are too big for their shoes, and are the very ones who foster discontent, and surreptitiously stir up bad feeling between people who would otherwise remain on the most friendly terms.

"TOMTIT, M.B.," has made a lame defence for his class. He has admitted to be true all that "LIEUTENANT-COLONEL, I. M. S.," has said, and all he is doing now is to disturb the harmony that exists between the civil and military members of the Assistant Surgeon class. He is making it uncomfortable for those working together as "Civil Surgeon" and Assistant. As for his opinion of the military officer's work in civil employ, let the Inspector-General of Hospitals and the Director-General judge. The European public have theirs, and be sure it is not in favour of the Babu class.

Yours, &c.,
"METAMORPHOSIS APOTHECARY."

Government Medical Gazettes.

BENGAL.

Major R. H. Charles, M.D., F.R.C.S., I.M.S. (Bengal), Prof. of Surgical and Descriptive Anatomy in the Med. College, Calcutta, and *ex-officio* Surgn. to the College Hosp. is granted furlough out of India on med. certificate for eight months from the 20th Feb. 1901.

Major D. M. Mohr, M.D., I. M. S. (Bengal), Offg. Civil Surgn., Chittagong, is apptd. to officiate as Prof. of Surgical and Descriptive Anatomy in the Med. College, Calcutta, and *ex-officio* Surgn. to the College Hosp., during the absence, on furlough, on med. certificate, of Major R. H. Charles, M.D., F.R.C.S., I. M. S. (Bengal), or until further orders.

The services of Capt. A. W. E. Cochrane, M.D., F.R.C.S., I. M. S. (Bengal), are placed temply. at the disposal of the Govt. of the Punjab.

Asst. Surgn. Syed Mahomed Afzal did duty at the Med. College Hosp., Calcutta, from the 21st to the 26th Jan. 1901.

Asst. Surgn. Dino Nath Mitter, Teacher of Anatomy in the Campbell Med. School, is allowed privilege leave for three months from the 26th Jan. 1901.

Asst. Surgn. Jyotish Chandra Mustaf, Addnl. Demonstrator of Anatomy, Med. Coll., Calcutta, is apptd. to act as Teacher of Anatomy in the Campbell Med. School, from

the 26th Jan. 1901, during the absence, on leave, of Asst. Surgn. Dine Nath Mitter.

Asst. Surgn. Syed Mohamed Afzal is apptd. to act as an Addnl. Demonstrator of Anatomy, Med. Coll., Calcutta, from the 26th Jan. 1901, during the absence, on deputation, of Asst. Surgn. Jyotish Chandra Mustafi.

Asst. Surgn. Basanta Kumar Roy is allowed leave for four months, on med. certificate, from the 26th Nov. 1900.

The Lieut.-Governor is pleased to appoint Mr. C. Morris to be a visitor of the European Lunatic Asylum at Bhawanipur, vice Mr. H. P. Newton.

Mily. Asst. Surgn. W. Sherrington did duty at the Presidency Gen. Hosp. from the 25th Nov. 1900 to the 29th Jan. 1901.

Senior Asst. Surgn. Nobin Chunder Dutt made over ch. of the Noakhali Jail to Asst. Surgn. U. N. Sen, Rai Bahader, on the 5th Feb. 1901.

Capt. W. W. Clemens made over ch. of the Ranchi Jail to Capt. E. S. Parry on the 16th Jan. 1901.

Babu Mohendra Chunder Moumunder made over ch. of the Bogra Jail to Asst. Surgn. Sarat Chandra Sen on the 2nd Feb. 1901.

Capt. J. T. Calvert, I.M.S., made over ch. of the Darbhanga Jail to Lieut.-Col. T. Grainger, I.M.S., on the 2nd Feb. 1901.

The following Civil Hosp. Assts. passed the medico-legal exam. of Med. Sub. on the dates specified against their names:—

Mir Abdul Bari; Soshi Bhusan Roy; Sarat Chandra Sen; Shaik Mahomed Ibrahim; Kamini Kumar Sen; Amrita Lal Mandal; 31st Jan. 1901. Man Mohun Chakravarti; Pryn Nath Roy; 1st Feb. 1901.

Asst. Surgn. Syed Hasam held ch. of the Sumbhu Nath Pandit Hosp. at Bhowanipore from the 31st Dec. 1900 to the 11th Jan. 1901.

Asst. Surgn. Bhagabutty Kumar Chowdhuri, in offg. ch. of the Sumbhu Nath Pandit Hosp. at Bhowanipore, is allowed privilege leave for three months, from the 31st Dec. 1900.

Asst. Surgn. Hari Pada Mukerjee, Inspector in ch. of Animal Vaccination Depot, Calcutta, is apptd. to act at the Sumbhu Nath Pandit Hosp. at Bhowanipore, from the 13th Jan. 1901, during the absence, on leave, of Asst. Surgn. Bhagabutty Kumar Chowdhuri.

Asst. Surgn. Syed Hasam is apptd. to act as an Inspector in ch. of the Animal Vaccination Depot, Calcutta, from the 19th Jan. 1901 during the absence, on deputation, of Asst. Surgn. Hari Pada Mukerjee.

Asst. Surgn. Harendra Kumar Das, on return from leave, is apptd. to do suppy. duty at the Med. Off. Hosp., Calcutta.

Asst. Surgn. Brojendra Nath Basu, who was tempy. employed in Bengal, is permanently admitted into the service of Govt. as an Asst. Surgn. from the 2nd Jan. 1901.

Asst. Surgn. Amulya Chandra Champati, of the Krishnagar Disty., held med. ch. of the civil em. of Nadia from the 24th Aug. to the 1st Nov. 1900 in addn. to his own duties.

Mily. Asst. Surgn. T. H. Bonnar, in ch. of the Chausa Plague Camp, is allowed privilege leave for two months from the 26th Jan. 1901.

BOMBAY.

The following transfers are sanctioned:—

Mily. Asst. Surgn. Hugh Alexander Poyntz, I.S.M.D., from under the orders of the Health Officer of the Port of Bombay, to Sir J. J. Hosp., Bombay.

Mily. Asst. Surgn. R. W. Chittu, I.S.M.D., from Sir J. J. Hosp., Bombay, to Mily. Dept.

Hosp. Asst. Aldas Wadhmal, from Cholera duty, Thar and Parkar Dist., to Gen. duty, Hyderabad.

Hosp. Asst. Belchand Jawharmal, from Cholera duty, Lyari, Karachi, to Gen. duty, Hyderabad.

Hosp. Asst. Jethmal Manikrai, from Gen. duty, Hyderabad, to Gen. duty, Shikarpur.

Hosp. Asst. Hukumatrai Asanand, from Poor House, Umarkote, to Gen. duty, Hyderabad.

Mily. Asst. Surgn. Vinayal Hamsand, from N.W. Ry. Hosp., Kotri, to Rohri-Kotri Ry. Disty., Rohri.

Hosp. Asst. Choithram Pessensing, from N.W. Ry. Hosp., Kotri, to Gen. duty, Jacobabad.

Hosp. Asst. Choithram Shewatam, from Rohri-Kotri Ry. Disty., Rohri, to N.W. Ry. Hosp., Kotri.

Hosp. Asst. Lekhray Lalchand, from Cholera duty, Thar and Parkar Dist., to Cholera duty, Lyari, Karachi.

Hosp. Asst. Vithoba Mathurajee, from Cholera duty, Kotri, to Cholera duty, Karachi.

Hosp. Asst. Mohomed Rahimankhan, from Famine duty, Thar and Parkar, to Matsai Disty.

Hosp. Asst. Bharsing Tewaring, from Matsai Disty. to Commr. in Sind's Estab.

Hosp. Asst. Bulchand Jawharmal, from Gen. duty, Hyderabad, to Koti Bunder Disty.

Hosp. Asst. Hekumatrai Asanand, from Gen. duty, Hyderabad, to Central Prison Hosp., Hyderabad.

Hosp. Asst. Gobindram Utamchand, from Central Prison Hosp., Hyderabad, to Gen. duty, Shikarpur.

Hosp. Asst. Khalikdad Khudadadkhan, from Cholera duty, Jacobabad Taluka, to Kashmir Disty.

Hosp. Asst. Alimahomed Hussainkhan, from N.W. Ry. Hosp., Kotri, to Sind Gang.

Hosp. Asst. Lal Mahomed Futeh Mahomed, from Sind Gang, to N.W. Ry. Hosp., Kotri.

Hosp. Asst. Liharam Utamchand, from Gashi Yasinia Disty., to Gen. duty, Sukkur.

Hosp. Asst. Lekhray Lalchand, from Cholera duty, Karachi, to Masora Disty.

Hosp. Asst. Bhasker Shripur, from Gen. duty, Nasik, to Famine duty, Waghad.

Hosp. Asst. Kavasji Ramani, from Gen. duty, Ahmedabad, to Civil Hosp., Kaira.

Hosp. Asst. Waman Ambaji Warty, from Roman Catholic Orphanage School, Poona, to Civil Hosp., Sholapur.

Hosp. Asst. Munjanath Timappa, from Gen. duty, Poona, to Civil Hosp., Ahmednagar.

Hosp. Asst. Bhimaji Krishna, from Famine duty under the orders of the Sany. Commr. for the Govt. of Bombay, to Disty., Navalgand.

BURMA.

Hosp. Asst. H. C. Koyal relinquished ch. at the Outpost Hosp., Wundwin, Shamo dist., on the 14th Jan. 1901, and assumed ch. at the Police Hosp., Shamo, on the 16th Jan. 1901.

Hosp. Asst. H. C. Koyal relinquished ch. at the Police Hosp., Bhamo, on the 19th Jan. 1901, and assumed ch. at the Civil Hosp., Bhamo, on the same day.

Hosp. Asst. Sawan Singh relinquished ch. of his duties with the Milly. Police detachment at Bampton, Southern Shan States, on the 31st Dec. 1900, and assumed ch. at the Civil Disp., Bampton, Southern Shan States, on the 1st Jan. 1901.

Hosp. Asst. Sawan Singh assumed ch. of additional duties at the Police Hosp., Bampton, Southern Shan States, on the 1st Jan. 1901.

Hosp. Asst. P. Govindoo Pillay, on return from Akyab after the deptl. exam., held ch. of supy. duties at the Civil Hosp., Sandoway, from the 10th to the 29th Nov. 1900.

Hosp. Asst. Obowdhuri Sherafuddin, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 16th Dec. 1900, as a supy.

Hosp. Asst. Obowdhuri Sherafuddin relinquished ch. at the Gen. Hosp., Rangoon, on the 31st Dec. 1900, and assumed ch. at the Police Hosp., Lashio, Northern Shan States, on the 5th Jan. 1901, as a supy.

Hosp. Asst. D. Phillip relinquished ch. at the Civil Hosp., Shwegyin, Toungoo dist., on the 19th Dec. 1900, and was attached on supy. duty to the Gen. Hosp., Rangoon, on the 27th Dec. 1900.

Hosp. Asst. D. Phillip relinquished ch. of supy. duties on 27th Dec. 1900, and assumed ch. as Deputy Superintendent, Lunatic Asylum, Rangoon, on the 31st Dec. 1900.

N.-W. P. & OUDH.

Civil Asst. Surgn. E. Millican, attached to Sadr Disp., Bara Banki, extraordinary leave without allowances for one year from the date he may avail himself of it.

Tempy. Civil Asst. Surgn. Kasbi Nath, on being relieved of plague duty in connection with Magh Mela, Allahabad, to reserve duty at Benares.

Civil Hosp. Asst. Narain Pershad, on reserve duty at Lucknow, to the ch. of the Hussainabad Disp., as a tempy. measure, vice Asst. Surgn. Rusehid-ud-din.

Civil Asst. Surgn. Purna Chandra Mukerji, attached to Nagina Disp., in the Binjor dist., to plague duty at Ballia.

Hosp. Asst. Faraghat Ali Shah, from reserve duty, Lucknow, to the ch. of Nagina Disp., in the Binjor dist., as a tempy. measure.

The services of Civil Asst. Surgn. Rashid-ud-din, in ch. of the Hussainabad Dispensary, Lucknow, are tempy. placed at the disposal of the Rampur State, from the 1st Feb. 1901.

Milly. Asst. Surgn. W. Heathcock, in civil med. ch. of Unao, was on leave on med. certificate from the 16th Nov. to the 21st Dec. 1900.

Lieut. C. W. Mainprize, R.A.M.C., to the civil med. ch. of the Farrukhabad dist., in addn. to his milly. duties, from the 4th Feb. 1901.

Maj. D. W. Scotland, I.M.S., Civil Surgn., Etawah, is placed on special duty in connection with plague in Benares.

Capt. J. M. Crawford, I. M. S., whose services have been replaced at the disposal of this Govt. by the Govt. of India, Home Dept., to be Civil Surgn., Etawah.

Civil Asst. Surgn. Gobind Chandra Banarji, attached to the Sadr Disp., Unao, held ch. of the civil med. duties of that dist., in addn. to his other duties, from the 16th Nov. to the 31st Dec. 1900.

CENTRAL PROVINCES.

One month's leave on med. certificate is granted to Civil Hosp. Asst. Muhammad Aftab-ud-din, on gen. duty at Chanda, from the date on which he is permitted to avail himself of it.

Civil Hosp. Asst. Rajoni Kanta Sahai, on gen. duty at Hoshangabad, is granted two months' leave without pay from the 17th Jan. 1901.

Civil Hosp. Asst. Sajjad Hussain, of the N.-W. P. Estab., was, on reversion from famine duty in the Civil Dept., on gen. duty at Bhandara from the 8th to the 15th Nov. 1900.

Civil Hosp. Asst. Ramchandra Sitaram, on gen. duty at Jabulpore, is tempy. apptd. to the Pandhara Branch Disp., in the Nagpur Dist.

Civil Hosp. Asst. Vithal Anand Rao, attached to the Pandhara Branch Disp., is granted privilege leave for two months from the date of relief by Ramchandra Sitaram.

On reversion from famine duty under the P. W. D., Native Doctor Wali Ullah of the N.-W. P. Estab. was placed on gen. duty at Jabulpore from the 16th to the 31st Oct. 1900.

Civil Hosp. Asst. Budhu Lal, on gen. duty at Hoshangabad, is deputed on plague duty at Itarsi, in the Hoshangabad Dist.

PUNJAB.

Lieut. G. Browne, I. M. S., assumed ch. of the Civil Med. duties of the Kohat Dist. on the 31st of Jan. 1901, relieving Capt. V. G. Drake-Brockman, I. M. S.

Capt. C. N. C. Wimberley, I. M. S., assumed ch. of the Civil Med. duties of Mardan on the 7th of Feb. 1901, relieving Capt. A. W. B. Cochrane, I. M. S.

Lieut. E. D. W. Greig, I. M. S., assumed ch. of the Civil Med. duties of Mardan on the 8th Feb. 1901, relieving Capt. C. N. C. Wimberley, I. M. S.

Capt. A. W. B. Cochrane, I. M. S., whose services have been placed tempy. at the disposal of the Govt. of the Punjab, is apptd. to officiate as Supdt. of the Punjab Lunatic Asylum, from the 11th of Feb. 1901, vice Capt. G. F. W. Ewens, I. M. S., proceeding on leave.

Lieut. J. T. Weston, Civil Surgeon, Hissar, is transf'd. to Gujranwala, where he assumed ch. of his duties on the 6th of Feb. 1901, relieving Capt. J. Davis.

Capt. J. Davis, Civil Surgeon, Gujranwala, is transf'd. to Hissar, where he assumed ch. of his duties on the 9th Feb. 1901, relieving Asst. Surgn. Brij Lal, Hissar Disp., who acted as Civil Surgn. of Hissar, in addn. to his other duties, from the 1st to the 9th Feb. 1901.

Capt. V. G. Drake-Brockman, I. M. S., made over ch. of the duties of Supdt. of the Kohat Jail to Lieut. G. Browne, I. M. S., on the 31st Jan. 1901.

Lieut. J. T. Weston, M. D., Senior Asst. Surgn., made over ch. of the duties of Supdt. of the Hissar Jail to Kawaja Tasadduq Hussain, B. A., Extra Assistant Commr., on the 1st Feb. 1901.

Hosp. Asst. Ganesh Datta, doing gen. duty at Dera Ismail Khan, is transferred to Delhi for gen. duty from the 23rd Jan. 1901.

Hosp. Asst. Ghazi ud-din, Dalhousie Disp., has obtained three months' privilege leave from the 5th Feb. 1901.

Hosp. Asst. Fattah Singh, Police and Civil Stn. Hosps., Delhi, has obtained three months' privilege leave, and was relieved of his duties on the 4th Feb. 1901 by Hosp. Asst. Ganesh Datta, doing gen. duty at Delhi.

Hosp. Asst. Bindraban, doing gen. duty at Hoshiarpur, was apptd. to the Nowshera Dargal Section of the N.-W. Ry. on the 2nd. Feb. 1901.

Asst. Surgn. Feroze ud-din, Civil Hosp., Umballa, is transferred to the Jullundur Dist. for plague duty. He reported himself to the Plague Med. Offr., Banga, on the 1st Feb. 1901.

Hosp. Asst. Khuda Baksh, on plague duty, Jullundur Dist., is transferred to the Sialkot and Gurdaspur Dist. for plague duty. He reported himself to the Plague Med. Offr. on the 10th Feb. 1901.

Hosp. Asst. Ishar Das, doing gen. duty at Jullundur, was apptd. to the Jullundur Jail Hosp. on the 9th Feb. 1901, relieving Hosp. Asst. Chanan Shah, retired.

Senior Asst. Surgn. Bal Sahab Bhagwan Das, Gurdaspur Civil Hosp., has obtained one month's privilege leave from the 3rd Feb. 1901.

Tempy. Asst. Surgn. Jagat Narain, doing gen. duty at Sialkot, is transferred to Gurdaspur for tempy. ch. of the Civil Hosp., from the 8th Feb. 1901.

Asst. Surgn. Kirpa Ram, Kora, Fazlika Disp., Ferozepore Dist., obtained privilege leave from the 1st to the 21st Jan. 1901.

Asst. Surgn. Kirpa Ram, Kora, was apptd. to do gen. duty at the Mayo Hosp., Lahore, on the 21st Jan. 1901.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

MARRIAGE.

CUNNINGHAM—SKINNER.—At St. James's Church, Delhi, on the 18th February, by the Rev. P. C. Nugent, Chaplain, Major J. A. Cunningham, I.M.S., Civil Surgeon, Delhi, to Mabel, widow of the late A. E. Skinner, Esq., and daughter of E. A. Poole, Esq., of Sussex House, Brighton.

ORIGINAL ARTICLES.

SURGERY OF THE KIDNEY: A RECORD OF TWENTY-TWO CASES.

BY JOSEPH L. BREESTON, L.R.C.S.P., L.R.C.S.I., ETC.,
Newcastle.

THE following is a list of cases of renal surgery which have come under my care, mostly in the Newcastle Hospital. Classified, they are as follows:—

Nephrolithotomy	...	...	12
Nephrectomy	...	...	3
Nephrotomy	...	...	2
Nephrorrhaphy	...	...	2
Perinephric Abscess	...	...	2

CASE I.—Perinephric Abscess.—A. T., sailor, aged 24, admitted January 1888. Had enteric fever and was discharged from hospital two months ago. Says that he has never been strong since. Has complained of more or less pain in right side; very emaciated, and has night sweats; urine alkaline and contains pus cells. Large, tender, fluctuating mass in right lumbar region, extending from twelfth rib to crest of ilium.

Operation.—Oblique incision from just before the last rib forwards towards the iliac crest. The abscess was found comparatively superficial. The cavity was well washed out, and the kidney examined by palpation with the fingers. As it appeared healthy, a drainage tube was placed behind it, and the wound closed with silver-wire sutures. A wet compress of carbolic lotion was placed over the wound, and the cavity syringed twice daily with the same fluid. The man made an uninterrupted recovery, and was discharged in a month with the wound healed.

It would be well here perhaps to draw your attention to the period at which this operation was performed. At that time surgical procedures were not carried out with that attention to details which we are accustomed to observe now-a-days. Still I am bound to say that the case did well, though his recovery was rather more protracted than it would be under present conditions.

CASE II.—Calculus in Kidney.—H. A., aged 26, sailor, admitted January 1893. Has suffered from renal colic for three years; attacks varying in intensity, and generally, but not always, followed by blood in the urine; pain most persistent in the right testicle; urine contains crystals of lithic acid and some pus cells, is variable in quantity, very scanty during attacks of pain, deep pressure over the right kidney causes pain which radiates down to testicle of same side.

The symptoms pointing to a case of renal calculus, I operated by the oblique incision in the right loin. Some trouble was experienced in reaching the kidney, owing to the large amount of fat. At last the organ was exposed, and I proceeded to pass a darning needle through the convexity towards the pelvis. At the second puncture I was greatly relieved to feel the point of the needle grate against the stone. I now passed a tenotomy knife through the substance of the kidney beside the needle, until I felt it impinge upon the stone. A pair of sinus forceps followed and the stone was extracted. It was

composed of lithic acid and weighed only 20 grains. The wound in the kidney was washed out with boracic lotion, and ceased bleeding after digital pressure for a few minutes. A drainage tube was passed into the lower angle of the wound behind the kidney, and the external wound closed with catgut sutures. Blood was present in the urine for three days. After that the man had not a bad symptom. Looking back on this case in the light of subsequent experience, the stone was found, I think, easier than on any other occasion, and this with the needle, a method of procedure the more I use it the less I rely on it. The largest stone I have removed could not be detected by the needle. Still, by a lucky chance—for it was a chance, considering the size of the stone—I found it at the second puncture.

CASE III.—Pyonephrosis Nephrotomy.—J. H., aged 35, miner, Wallsend, has suffered from stricture for some years, necessitating the passage of catheters. Has had retention on two occasions. Urine has been purulent for some time. A fortnight since had rigors, and at same time seized with severe pain in left side. Is now very emaciated, with hectic at night. A mass can be felt in left lumbar region, extending to median line in front, and to level of umbilicus below. Urine alkaline; sp. g. 1015. About one-third pus on standing. Contains pus cells and a few blood cells. The kidney was exposed on the 18th July 1894 through the lumbar incision, and found to be enlarged to about three times the ordinary size. Digital palpation revealed fluctuation everywhere, but no hard substance. An incision was made through the cortex, and a large quantity of foul-smelling pus and urine evacuated. The kidney was well irrigated with boroglyceride, and a drainage tube placed in the kidney. The discharge was very profuse and lasted for about two months, leaving a sinus, which remained for twelve months. At the end of this time he left the district and I lost sight of him. I think now that the better course would have been to have excised the kidney.

CASE IV.—Perinephritic Abscess.—J. P., aged 40, labourer, Newcastle. A month ago began to feel ill. Reported himself with a "lump" in the side. Large, tender, fluctuating mass can be felt over right kidney, which, on being explored with needle, is found to contain pus. Urine normal. The kidney was exposed, and during the procedure an immense quantity of pus was evacuated. As the kidney appeared normal, the wound was irrigated and drained. The man was about again in a fortnight.

CASE V.—Nephrolithotomy.—M. B., aged 40, nurse, Newcastle, has been in failing health for four years. More or less pain in right side. Urine variable in quantity. Renal colic severe at times, followed by hæmaturia. Jolting in a vehicle induced the attacks and increased the amount of hæmaturia. Examination revealed a spot tender on deep pressure over right kidney. Urine alkaline, contains pus and blood cells; sp. g. 1015. The kidney was exposed by the oblique incision and brought up into the wound. Acupuncture detected the stone, after which the kidney was incised, and the stone extracted with forceps. Stone weighed 40 grains and was composed of lithic acid. Drainage tube was placed behind the kidney, the muscles united with catgut, and skin with silk worm gut.

She went on well for ten days, when the temperature began to rise, and thinking there was some collection of pus in the wound, I again cut down, but found everything normal. After this she progressed favourably, and left the institution in a month's time.

CASE VI.—Nephrolithotomy for Soft Calculus.—A. R., aged 32, married woman, Newcastle. Has had periodical attacks of renal colic, with hæmaturic pain always on right side, and always followed by discharge of lithic acid. Is emaciated and looks ill; urine acid, sp. g. 1020; crystals of lithic acid in abundance; has tender spot on right kidney; no tenderness in opposite side.

6th August 1895.—Kidney exposed and brought into wound. Acupuncture gave negative results, so I incised the cortex and passed the index-finger into the pelvis. This was lined with gritty substance, resembling that passed in the urine; no hard calculus was found. The kidney was well irrigated, and the wound closed in the usual manner. She was well in a fortnight, and has never had any attack since.

CASE VII.—Nephrolithotomy.—W. P., aged 22, horse-driver, Newcastle. Two years ago had pelvis fractured through being crushed underneath a waggon. Since then has always had urinary trouble; occasionally retention. I had already crushed a stone in his bladder six months previously. Urine never properly cleared up; always contained pus and phosphates in great quantity. Now has constant pain in right side, but no definite attack of renal colic, nor hæmaturia. Has very tender spot over right kidney.

Operated 7th August 1899.—Kidney exposed and brought outside loin. Palpation revealed stone at upper part of pelvis. I cut through the kidney substance on to the stone and extracted it with my finger. It weighed 60 grains and was phosphatic. He recovered from the operation, but died about twelve months afterwards from uræmia. At the *post-mortem* both kidneys were in the condition known as surgical kidney.

CASE VIII.—Nephrolithotomy.—M. R., aged 24, married woman, Lambton. For past three years has suffered from renal colic at frequent intervals, lasting for about an hour at a time. Attacks brought on by muscular efforts. Has only had hæmaturia once. Has tender spot over left kidney. Urine acid and contains a few blood cells; sp. g. 1028.

Operated 8th September 1895.—Kidney exposed by oblique incision and brought on to loin. Stone could be felt in the upper part of the ureter. I pushed it back into the pelvis. Made an opening through the kidney substance and extracted the stone with a sinus forceps. The kidney was replaced, the wound drained, and closed with silkworm gut. She had no further symptoms and went home in three weeks.

CASE IX.—Perinephritic Abscess.—L. S., aged 10, Newcastle. A weak, delicate-looking boy. Has suffered from hip disease for three years, but has been well for twelve months. Three months since had pain in left side, which has been constant more or less since. Now has swelling extending as far forward as nipple line on left side, and fluctuating. Urine contains pus cells; sp. g. 1010. Incision made 9th October 1895 over left

kidney, and after deep incision a cupful of foul-smelling pus was evacuated. Kidney palpated, but nothing abnormal was perceptible. The wound was packed with gauze and discharged for about a month. It healed completely two months later.

CASE X.—Pyonephrosis Nephrotomy.—E. J., aged 40, sailor. Has suffered for last four years from pain in left lumbar region. Attacks simulating renal colic, after which urine would be almost wholly composed of pus. Patient anæmic and emaciated. A tumour can be felt on left side of abdomen. More perceptible on pressure from behind. Is more or less tender all over this region, but no defined spot. Urine contains quantities of pus. Has hectic at night.

6th July 1896.—Incision made in lumbar region. Kidney cut down upon and found about three times the ordinary size and fluctuating. Incision made through cortex, and large quantity of pus and urine evacuated. No stone could be felt. Drainage tube placed in kidney and the wound packed. He made slow recovery, and was discharged four months later with a sinus in the loin. I have since lost sight of him.

CASE XI.—Nephrotomy for Calculus.—M. B., aged 50, engineer, Cooranbong. Healthy-looking man, florid complexion, has suffered from renal colic for some years; hæmaturia on two occasions; each attack of colic would be succeeded by a deposit of lithic acid in the urine. Jolting induced the attacks.

Is in good condition. Urine acid, contains lithic acid crystals; no pus cells; sp. g. 1025. Has tender spot over left kidney, producing sharp lancinating pain when pressed.

Left kidney exposed and brought out on to loin—needled all over with negative result. I then incised with scalpel and passed in my finger, then continued the incision nearly the whole length of the organ without finding any stone. Hæmorrhage was free, so the kidney was stitched with four deep catgut sutures, drainage tube placed behind the kidney and the wound closed. His recovery was uninterrupted.

Six months afterwards he called on me, stating that he had just recovered from a violent attack of renal colic, the first since the operation, and that afterwards he had passed a stone which he showed me. It was composed of lithic acid and weighed 25 grains. There was considerable difficulty in passing it through the meatus urinarius.

This case illustrates the difficulty sometimes met with in finding a stone in the kidney. The symptoms all pointed to its being there; but, even though the kidney was almost divided into two parts, I failed to find the stone.

CASE XII.—Lumbar Nephrectomy for Renal Tuberculosis.—E. M., aged 13, school-girl, Adamstown. Six months ago began to lose strength, and complained of pains in the back, on the region of the left kidney. Has steadily become worse; hectic, loss of weight, with rigors; is very thin and emaciated; tumour can be felt in left loin; very tender on pressure; urine contains pus and blood-cells, with some phosphates.

Kidney exposed by lumbar incision; about twice natural size. Nothing hard could be felt, but seemed solid nodular masses. On incision, foul-smelling pus and urine, with pockets of cheesy material, escaped. The whole kidney was one mass of these pockets, leaving no kidney substances. The ureter was blocked by a small phosphatic calculus. As it was apparent this kidney was not secreting urine, I removed it, first ligaturing off the ureter and vessels in separate ligatures.

Drainage tube placed in and left there for forty-eight hours.

There was absolutely no shock. The child expressed herself next morning as being perfectly well. She was discharged in three weeks.

CASE XIII.—*Nephrolithotomy*.—A. T., aged 23, cabinet-maker, Wickham. Suffered for three years from "pain in the back," for which he had tried various liniments. On close enquiry, this "pain" appeared to have a renal origin. There was no hæmaturia, but exercise and jolting always increased the severity of the pain of the attack. The chief diagnostic point was the extremely tender spot over the left kidney. The urine did not show any abnormality.

12th February 1897.—Kidney exposed by oblique lumbar incision and brought out. The needle was used freely without detecting any stone. I then incised the kidney, passed my finger into the wound, and found a small stone weighing 28 grains in one of the calyces. The subsequent history was uneventful, and three months later he had gained a stone and a half in weight.

CASE XIV.—*Nephrolithotomy*.—D. S. aged 18, school-girl, Uralla. This case is what one might call a surgical disaster. She was a girl of healthy appearance, but suffered from attacks of renal colic without hæmaturia; in fact the history was on all-fours with the previous case, the diagnostic point being the tender point on pressure over the left kidney. There was no difficulty in exposing and exploring the kidney. The hæmorrhage was a little free, but ceased on pressure. The wound was closed in the ordinary manner, and late at night she was fairly comfortable. Early the next morning she expressed a wish for a cup of tea, and a quarter of an hour later she was dead. There appears to be no assignable cause beyond a thrombus. This is the only case of the kind I have met with, and unfortunately there was no *post-mortem* obtained.

CASE XVI.—*Hydronephrosis, Abdominal Nephrectomy*.—L. W., aged 24, sempstress, Wickham. On the 3rd June 1897 was consulted by this patient, who had a "lump in her side." On examination there appeared a distinct swelling on the right side below the ribs and perceptible in the loin. Palpation with both hands showed a tumour, and percussion revealed the colon in front. There was no emaciation and no jaundice. Dulness of erector spina behind and almost to crest of ilium. Urine nothing abnormal, excepting at times she would pass an excessive quantity. Sp. g. 1028.

I decided to do nephrectomy by the abdominal method in consequence of the size of the tumour, and accordingly made an incision in the right linea semi-lunaris, about five inches in length. After opening the peritoneum, the tumour came into view with the colon toward the middle line. I pushed this further over and tore through the meso colon with my finger, freed the tumour down to the pedicle.

The posterior attachments were dealt with in the same manner, and the pedicle isolated with the vena cava at the bottom of the wound.

The pedicle was now transected with a double silk ligature and tied. Sponges were then packed round and the pedicle cut. A little oozing took place from the sides and bottom of the wound, but ceased after flushing with hot boracic lotion. The wound was closed in the usual manner. Very little shock was experienced, and she made an uneventful recovery, leaving hospital a month later.

CASE XVI.—*Nephrectomy, Renal Tuberculosis*.—L. B., aged 30. Three years ago began to suffer from frequency of micturition and odor urina. Is unmarried, but had a child eighteen months ago, which only lived for a week.

Six months prior to the operation I saw her. She was then losing flesh, with hectic and pyuria. There was a tender swelling, about the size of a closed fist, in the region of the left kidney; resonant in front.

I then recommended nephrectomy, but she preferred to wait.

Six months later she sent for me, and wished the operation performed at any cost. Her condition at this time almost precluded operative interference; but in consequence of the urgent entreaties of herself and friends, I consented to try what could be done, after explaining that it was almost hopeless.

On the 15th August 1897 I opened the abdomen over the most prominent part of the tumour, and enucleated it, forming a pedicle with the vessels and ureter. The latter was very much thickened and full of tuberculous deposit. After detaching it from the kidney I brought the end out through an opening in the loin.

Very little hæmorrhage occurred, but the shock was considerable. She remained in a collapsed state and died thirty-six hours later, only four ounces of urine being secreted since the operation. No *post-mortem* could be obtained.

CASE XVII.—*Moveable Kidney*.—M. D., aged 28, married, Wallsend. Three children. Has suffered from dragging pain in back and right loin for four or five years. Pain periodical in attacks, accompanied by nausea and vomiting, and rendered worse by exertion. In semi-prone position a moveable tumour can be made out, in size and shape similar to the kidney. Urine contains nothing abnormal.

Operation, July 1898.—Kidney exposed in the usual manner. The peri-renal fat separated by blunt dissection. Three catgut sutures were then passed through the substance of the kidney, then through either side of transverse fascia and muscles. The wound was then united with deep silkworm sutures, no drainage tube being used. She was kept in bed three weeks, and

discharged in a month. Twelve months afterwards she had not had any return of the old symptoms.

CASE XVIII.—Nephrolithotomy.—L. W., aged 22, domestic servant, Boggabri. Has had attacks of renal colic for four years, followed by hæmaturia. Pain increased by jolting in a coach. Physical signs not very marked, with the exception of an exquisitely tender spot over the region of the right kidney. Urine alkaline, contains some pus cells; sp. g. 1025.

Operation, 14th August 1898.—Kidney exposed by oblique incision and stone found with very little difficulty. The stone was composed of oxalate of lime and weighed 20 grains. The wound was drained and closed in the usual way, and she was discharged in a month.

CASE XIX.—Nephrolithotomy.—C. S., aged 17, Adamstown. Has suffered from pains in the back and loins for four or five years. Attacks of renal colic, followed by hæmaturia—pain referred to being both sides, but more particularly to right. Six months ago the right kidney was operated upon by one of our hospital surgeons, but nothing was found. As the symptoms did not abate, he was admitted to hospital under my care. He then complained of constant attacks of renal colic with hæmaturia, was very emaciated and weak. Pressure over the left kidney gave rise to severe pain. Urine alkaline, contained pus cells and blood cells; sp. g. 1030. The symptoms on this occasion pointed undoubtedly to the left kidney as the seat of the trouble.

On the 19th January 1899, I cut down by the oblique incision and brought the kidney well into the wound. Palpation revealed a well-defined hardness, but needling gave negative results. I then cut in through the cortex, and the knife impinged on the stone. Great difficulty was experienced in extracting it; in fact, one piece was broken off in the attempt. After the whole of the stone had been taken out, the kidney was a good deal lacerated and gave rise to a pretty smart hæmorrhage. Digital pressure did not altogether control it, so I put in four deep catgut sutures. The kidney was replaced, and the wound drained and closed in the usual manner. The stone was phosphatic in formation and weighed 260 grains. He complained of a good deal of pain for the first night, for which he had gr. $\frac{1}{2}$ of morphia. After this he recovered rapidly, and was up and about in three weeks.

CASE XX.—Nephrorrhaphy.—C. D., aged 26, unmarried, living at Waratah. Has complained of pain in the back and dragging in the loin for three or four years. Increased on exertion. When semi-prone, a tumour can be felt, in shape like the kidney, which falls back when she is in the recumbent posture. Urine normal.

20th March 1899.—Kidney cut down upon; capsule incised and separated; then each side stitched to the transversalis fascia and muscles. The wound was closed with silk-worm-gut.

Nothing further of importance occurred. She was discharged in three weeks. I have seen her once since; there has not been any return of the old symptoms.

CASE XXI.—Nephrolithotomy.—M. B., aged 45, nurse, Coonabarabran. This is a continuation of Case 5. After the last operation she remained in weak condition, unable

to do her work for about twelve months. Since then she has had the position of Hospital Matron, but has always had more or less pain in the left side, colicky in character and rendered worse on exertion. Always has a temperature of 100. Urine contains about a tenth of pus of low specific gravity; desire to micturate frequent.

There is a great deal of tenderness over left kidney, and particularly in one spot. The kidney appears enlarged.

On the 20th February 1900, I cut down upon and brought the kidney into the wound. It was enlarged, almost double the normal size, and sacculated. On incision, a quantity of most foul-smelling urine and pus escaped. The kidney was simply a cavity, at the bottom of which was a stone weighing 40 grains. The proper course would have been to have excised the kidney there and then; but being in doubt as to the condition of the organ on the right side, I lightly curetted the cavity of the kidney all over, and thoroughly irrigated it; then placed a drainage tube in the pelvis and closed the wound. For about ten days she had a good deal of pain, during which time she developed an attack of cystitis. After this subsided, she recovered sufficiently to leave the hospital in about five weeks.

CASE XXII.—Nephrolithotomy.—C. A., aged 32, polisher, Newcastle. Has suffered for years from severe pain in the right side, radiating towards the umbilicus and simulating hepatic colic, so much so that the operation of cholecystotomy was performed by one of the leading surgeons in a metropolitan hospital, but he says no stones were found. He was sent home after this, and remained in the same condition of pain.

He was admitted into Newcastle Hospital in February 1900. Condition very emaciated. Biliary fistula still open. Describes pain as colicky in character and descending into right testicle, which is retracted during paroxysms; has distinct pain on pressure over right kidney. Urine contains a few blood cells and lithic acid deposits.

February 22nd.—The kidney was explored, and a stone weighing 45 grains extracted, composed of lithic acid. His recovery was uninterrupted, and he was discharged in three weeks. I saw him a month since: he has gained flesh and has lost all his old symptoms.

From the foregoing cases I do not claim to have an extensive experience in renal surgery, but give them with the conclusions I have drawn from them.

Regarding the incision, I have always employed the ordinary oblique incision, excepting in the two cases of abdominal nephrectomy, and my reason for these was the very large size of the kidney. The oblique incision started from just below the last rib, close to the outer border of the erected spine, downwards and forwards towards the iliac crest. The costo-iliac space was increased as much as possible by a sandbag under the opposite loin.

Examination of the kidney can only be complete by bringing it well up into the wound and, if necessary, on to the loin. At first this may be a little difficult, but by

freely separating the peri-renal fat, it may be done in most cases with comparative ease. The most difficult cases naturally are those in which there is a large quantity of adipose tissue.

As to the value of needling the kidney in the search for the stone, I believe the use of the needle to be of the very negative value. Sometimes one will strike the stone at once, but in the largest stone I extracted I failed to find it with the needle. In nearly every case of stone, though, I have noticed a peculiar leathery sensation as if the needle were passing through chamois leather. I have noticed this even when I did not touch the stone with the needle.

Suturing the kidney.—In the later cases I have put two or three stitches of deep chromicised catgut if the hæmorrhage has been at all free and not easily controlled.

Length of incision in kidney does not appear to be of much consequence. In one case I almost bisected the organ in the search for the stone, and the man recovered just as well as those in which a small wound had been made.

Drainage.—In all cases the wound was drained by the ordinary rubber tube placed at the bottom of the wound, not in the kidney. The last case was drained with gauze placed in the same position, and removed the second or third day.

Suturing the wound.—The deeper layers of muscles were united with chromicised catgut, and the skin with silkworm gut. In no case has there been any trouble with hernia, or similar trouble.

Subsequent treatment of the cases consisted in a little morphia to relieve pain the first and perhaps second night. The majority of cases only required three or four dressings.

Urinary Fistula.—I have had none of these cases.

Regarding the *risks* of the operation, they appear to be very small. In Case No. 14, which terminated in such a disastrous manner, I believe this would have happened after any operation.

There was no cause apparent for such an unfortunate termination, and the circumstances were too distressing to press for a *post-mortem*.

In the other case which died, No. 16, the termination was almost a foregone conclusion, and I only operated at the urgent entreaty of the patient and her friends.

In none of the other cases was there any cause for anxiety after the operation, and the patient was put back to bed.

THE USE OF QUININE IN MALARIOUS FEVERS.

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THE subject has been almost exhausted, and any attempt to contribute further to its literature will, I fear, be simply an effort to bring into one place facts and arguments already urged by well-known members of our profession. It is therefore necessary that one should

be very brief and cautious in his remarks on the action of quinine in malarious fever. In ancient times, when the properties of cinchona and its alkaloids were unknown to the practitioners of our country, they trusted chiefly to vegetable bitters in treating their fever cases. We now find that most of these bitters were taken from plants belonging to the natural order of Rubiaceæ or Cinchonaceæ.

To Dr. TWining is due the credit of first experimenting on the action of quinine upon the fevers of India. Its use has now become universally known, and the kavirajes and hakeems who were at one time dead against it employ it freely in all cases of fever, though under a different name. The late Kaviraj ROMA NATH SEN used to say that the revival of the Hindu system of treatment and its progressive success in the cure of chronic malarious fevers dates from the introduction of quinine into the list of their febrifuges. The secret of success of the modern kavirajes and hakeems lies confined within the bottle of HOWARD & SON'S quinine. It is now admitted by people and practitioners alike that the timely exhibition of quinine in malarious fevers can save lives from almost inevitable death.

In my practice I absolutely rely upon quinine in the treatment of malarious fevers, and the results, I am glad to be able to say, have always been most satisfactory. It is simply waste of time to wait for a remission, or perfect intermission, for one cannot be too positive about the prognosis of a case of malarious fever however mild it may appear at its onset. Instances are not unknown where apparently uncomplicated cases of intermittent fever have assumed a pernicious form and killed the patient. The use of quinine during the hot stage of fever has often been followed by hopeful results. In remittent fever it should be given in small repeated doses, for big doses are apt to cause sickness, insomnia, and depression of spirits. Failure of the heart's action, which is a serious complication of remittent fever, may be prevented by the judicious administration of quinine from a very early stage of the disease. The action of quinine upon the cardiac centre is really not depressant, but at the same time one cannot too confidently recommend it in cases where symptoms of heart failure have already set in, for the sickness and vomiting which sometimes follow the use of quinine tell seriously upon the function of this organ. I have not seen a single case where the administration of quinine in remittent fever has been followed by disastrous results. Intermittent fevers yield rapidly to quinine. One big dose of 15 grains, shortly followed by another similar dose, rarely fails to cut short the fever and prevent its return. I am not prepared to say whether quinine totally annihilates the plasmodia or simply makes them inactive and less capable of multiplication. The temporary absence of the parasites from the blood after a big dose of quinine is no certain indication of their death. It is yet premature to say whether the plasmodia die out immediately on the exhibition of quinine, or simply remain dormant for a time, and then, under favourable circumstances, revive and multiply. I would here cite an instance where a gentleman was

subject to an annual return of intermittent fever (quotidian). The fever, as a rule, used to visit him during the month of June. It, however, yielded rapidly to quinine, and after a short confinement to bed for four or five days, he used to return to his duties. Under my advice he continued to take 8 grains of quinine daily for six consecutive months, and then went to Madhupur for a change. He returned to Calcutta in May, and got the fever in June. He took quinine and got himself cured. The next year the fever returned in June, and the patient obstinately refused to take quinine. The fever, which was intermittent before, soon assumed a remittent form of a severe type.

I have met with a few other instances of this nature. From such examples one can roughly conclude that the disposition of the malaria germs is very versatile, and that they can, under different circumstances, assume diverse forms. The same variety which in one case produces *tertian* will in another produce *quotidian*, and from *quotidian* the fever may become *remittent*. It is not absolutely true that the large varieties will produce intermittent and the small ones remittent.

We have, through the observations of LAVERAN, BIGNAMI, GOLGI, and others, been able to ascertain the cause of malarious fever and understand the character of its amoeba; but we do not know what is the actual fate of these germs when the system is saturated with quinine. The symptoms and complications of fever depend mainly on the amount of poison they generate, and not upon the special variety of the plasmodia. It is questionable whether one group of plasmodia produces one, and only one, special chain of symptoms.

There cannot be the slightest doubt that quinine is specific for malarious fevers, but at times its action upon an unmistakable case of intermittent fever is *nil*. I have very carefully observed that quinine in all its forms is inert in arresting, or altering, the character of double quotidian fever. Amongst numerous other cases, I give short notes of two where quinine failed.

Case 1.—HEMBALAL BATIA, aged 32, a Hindu Jain and dealer in Government opium, got fever with shivering at about 11 A. M., February 3rd. The fever subsided about midnight and the patient was absolutely free from it on the following morning. It returned again at noon and subsided during evening. The next day it came at 9 A. M. and left him at 3 P. M. It returned again during the night with shivering and left him with copious perspiration at 2 A. M. From February 6th to May 20th the fever followed one rule of coming twice within twenty-four hours, and then it altered its character and became very irregular in respect of the time of its coming and leaving. The temperature during the cold stage was 104°F, during the hot stage 104.5°F, and at times it went up to 105.8°F. The temperature of the night attacks was one degree less than of the day attacks. During the intermission it went down to 97°. Complications appeared in rapid succession, and eventually the patient succumbed. Quinine was exhibited in large, moderate and small repeated doses, but to no effect. It was injected hypodermically, but the result was equally futile.

Case 2.—A respectable Hindu lady, aged 16, married, living in a comfortable house, got fever, and placed herself under the treatment of an experienced officer of the Indian Medical Service and several other qualified practitioners. The fever was of double quotidian type; the diurnal paroxysms were preceded by distinct shiverings, accompanied by retching and vomiting, but the night ones were absolutely free from these unpleasant symptoms. Her temperature ranged between 105° and 106° during fever, and it went down to 97° during intermission. She was treated with quinine and arsenic, but the result was extremely unsatisfactory. The spleen became hypertrophied, and the patient soon became cachectic. She was sent up-country for change of air, but returned in a shattered state of health. Quinine was given hypodermically for seven consecutive days, and the result was disappointing. Cancrum oris and diarrhoea ultimately carried her off.

One special peculiarity observed in this case was that whenever quinine was given in fairly large doses the duration of the fever was prolonged and the period of intermission cut short. When given hypodermically, it had a marked effect upon the temperature of her body, but none whatsoever on the duration of the fever. The poor patient suffered continually for eighteen months, and for the first twelve months the character of the fever was uniform. Afterwards it changed its type and became persistent. Since this alteration in the character of the fever the temperature did not rise higher than 103°. Epistaxis and bleeding from the gums preceded cancrum oris.

I have seen wonderful effects of quinine in pernicious intermittent fever which, when neglected, killed its victims in two days. Fortunately this form of fever is not usually seen in Calcutta. I have within the last twenty years of my private practice seen only ten cases. It has, like all other intermission fevers, three distinct stages, but the intermitent, though complete, does not last longer than three hours. The second paroxysm is graver than the first, and the third is still more grave than the second, and the fourth brings on all the worst complications which, in the majority of cases, prove harbingers of dissolution. Quinine is the only thing to be relied upon in such cases. To discontinue quinine before the patient is rendered dumb, deaf and blind is not always a prudent course, for it is generally after the production of complete cinchonism that patients commence to manifest symptoms of recovery. The early exhibition of quinine is always advocated. Whenever we find that the prostration after the first paroxysm is very great, and when the period of intermission is only nominal, we should at once take the case as serious and try to bring the patient under the influence of quinine. It is wise to err on the right side. To give quinine in small doses in such cases is to court disappointment. I would here beg to give reports of two cases where the neglect of giving quinine in the early stage of the fever was followed by disastrous consequences:—

Case 1.—A respectable Hindu lady, aged 35, had fever with shivering. The cold stage lasted for an hour, and was then followed by the hot stage, which

was very prolonged; temperature 106.4° . No pneumonia, bronchitis or pleurisy; urine normal; intense headache and delirium. These symptoms lasted for twenty-four hours, and then the temperature commenced to fall until it gradually went down to 98° . The period of intermission was short and lasted only for a couple of hours. The fever returned during the afternoon with its usual severity, and lasted for thirty-six hours, followed by perfect, though short, intermission; 5 grs. of quinine were given at noon. At about 1 o'clock the patient complained of chill, soon followed by high fever. The temperature recorded at 10 P.M. was 107° . Along with the rise of temperature, head symptoms of a grave nature manifested themselves, and during morning, when a change for the better was expected, she had twitchings of the muscles of the face and rigidity of the forearms; her mind became confused, and she died before evening.

Case II.—BARY, a Hindu gentleman, aged 28, had intermittent fever with short intermission and general prostration. Grave symptoms manifested themselves during the second paroxysm. Temperature went up to 108° , and the patient became dull and apathetic; passed urine involuntarily; pulse 130—pretty good; respiration 26; no pneumonia. These alarming symptoms lasted for eighteen hours, and with the decline of temperature the patient gradually returned to consciousness. We commenced exhibiting quinine when the temperature was 102° , and in six hours the patient had 40 grains of muriate of quinine. We also injected 5 grains of the bisulphate hypodermically, and steadily pushed on the muriate until the patient became absolutely deaf. The result was excellent, and he recovered, though after a protracted convalescence.

Quinine lessens the activity of the white corpuscles and gives tone to the red, and reduces the size of the spleen. Its success in the treatment of chronic malarial fever is illustrated by the two following cases:—

Case III.—SHARBASIA, a bigoted Jain, aged 50, suffered from chronic fever and hypertrophied spleen. He was absolutely anæmic, with a hæmic murmur at the neck; gums spongy, susceptible to bleed on slight pressure; complete anorexia; vertigo and palpitation on slight exertion. Liver slightly enlarged; spleen painful on pressure, and extending down to the umbilicus. Refused to take medicines other than stalks and leaves of indigenous plants. After repeated requests of friends and relatives he made up his mind to take quinine pure and simple. He was advised to try 5 grains of the muriate of quinine three times a day. The improvement was very slow at the beginning, but was very rapid after the expiration of a month. His appetite returned, and within six months

from the commencement of the treatment he completely recovered his health. His spleen became normal; his anæmia and other unpleasant symptoms disappeared altogether.

Case IV.—BABANTIA, a respectable Hindu widow, aged 38, came under my treatment for enlarged spleen, fever and general weakness. She was anæmic; her menses scanty, but regular; heart, lungs, liver, and kidneys normal. There was considerable wasting of the muscles, total anorexia, sickness and vertigo. She would only take quinine in honey, and was accordingly permitted to take it in that fashion. Her improvement was most extraordinary, and when she returned to me after two months she was a new person altogether; her spleen nearly normal; no more fever; appetite fair; takes a lot of milk and digests it; can walk a mile without feeling fatigued or tired; sleeps well during the night, and is comfortable in every respect. She had not a grain of iron in any shape, and did not leave Calcutta for change of air.

To ensure the rapid and effective action of quinine, it is desirable that it should be given in the form of mixture; where 60 grains in pill form fail to cut short the fever, 20 grains in solution will succeed in producing the desired effect. The coated pills often take a long time to dissolve, and at times they are passed in their original form. As a rule, children and delicate women strongly object to take quinine in liquid form. To induce them to do so, it is necessary to cover its taste. I have seen powdered myrabolam when placed over the tongue and kept there for a minute entirely mask the bitterness of the alkaloid. Next to it comes pulv. glycyrrhizæ et zingiberis. When they are mixed up with quinine its taste is covered to a great extent. The former plan is good and harmless. In India myrabolam is readily procurable, and is often used as a mild laxative by all classes of people.

The addition of salicine increases the potency of quinine and gives satisfactory results; its combination becomes useful when the fever is chronic, and when quinine alone fails to shorten its duration. I do not remember to have ever seen an instance where quinine and salicine failed to alter the character of malarious fever and check it materially. There is, however, one fundamental rule which should be carefully observed in administering quinine to a patient suffering from malarial fever, and that is to see the liver unloaded.

Case V.—MONOHOR, a Hindu male, aged 32, resident of Rajpore, a village in the 24-Parganas, came under my treatment for intermittent fever of six

weeks' duration. The fever was of quotidian type ; used to come regularly at 2 P. M., and leave at 11 P. M., with copious perspiration. Hepatic dulness slightly increased ; spleen slightly enlarged ; lungs, heart, healthy ; no albumen in the urine. The patient stated that he gave a fair trial to quinine and got simply disgusted with it. He took it regularly for three weeks, but derived no benefit from it. I gave him 15 grains in one dose, and the fever returned as usual. The next day I combined salicine with it, 5 grains of each, and pushed this every three hours until he had taken 40 grains of quinine and 40 grains of salicine. The result was satisfactory. The patient had no unpleasant symptoms. The fever did not return. The following day he had no quinine, but 10 grains of salicine. The evening temperature recorded was 99°. Convalescence was rapid, and the patient soon recovered completely.

The presence of diarrhoea complicates matters, and quinine in any form simply aggravates the gastro-intestinal irritability and brings on complete anorexia. In such cases the exhibition of quinine should be withheld until the stools become normal.

Dosage of quinine.—The dose depends entirely on the character and duration of the fever. When the intermission is longer than twelve hours, small, repeated doses agree well with the patient. When the period of intermission is short, a full twenty-grain dose should be given at once, followed by another ten-grain dose after a couple of hours. When alarming symptoms manifest themselves from the very early stage of the fever, the patient should be cinchonised as quickly as possible. To wait for a perfect intermission is a mistake. Some complain of nausea or vomiting after a big dose, but there are so many things to check it that no special notice need be taken of it. To give quinine in big doses immediately before the paroxysm of fever is to court complications and troubles. The use of quinine through the rectum has not often been followed by satisfactory results. There is no doubt, however, that it is partially absorbed into the system.

Hypodermic injection instantly reduces temperature, but how this reduction takes place we cannot satisfactorily explain, for I have never seen perspiration follow this process ; on the contrary, it is checked or entirely arrested by it. Deafness and noises in the ear, which sometimes become sources of annoyance and discomfort to patients, can be easily removed by the addition of ergot to the mixture. It does not in any way impair its action.

Quinine, when given to patients who are subject to hysteria or insanity, is liable to upset them. I have seen a young man, who some years ago suffered from mental

aberration due to the excessive use of bhang, but who has since left off the habit, go mad after taking 40 grains of quinine in the course of twenty-four hours ; but such cases are indeed very rare.

Dyspepsia and diarrhoea, which sometimes, though very rarely, come on after a prolonged use of quinine, disappear altogether after its discontinuance.

I have observed that quinine sometimes, though very rarely, causes diffuse dermatitis, and the report of one or two cases will, I trust, be not out of place.

Case VI.—GONES DOSS, a Marwari, aged 55, came down from the Punjab to place himself under treatment for general dermatitis said to have been of three weeks' duration. He said he took quinine for the cure of fever to which he was subject. He always took medicines from hakeems, and never suffered from any unpleasant effects. This time, at the instance of a friend, he took quinine and got the disease. I never knew before that quinine could cause dermatitis. I prescribed for him an alterative mixture which he continued for ten days, but found no improvement. I consulted my friend, Dr. K. McLEOD, then Professor of Surgery in the Calcutta Medical College, and prescribed for the patient an ointment containing resorcine, ferri sulph. and lanoline. The relief was almost immediate, and he was all right very soon and returned to his own place. Three years ago he came down to Calcutta on business and got fever. I prescribed for him quinine in 5-grain doses. After taking four doses he complained of an itching sensation all over the body, and on the following day he had a return of dermatitis, which, however, yielded soon to resorcine and lanoline. On the appearance of the skin trouble quinine was discontinued, and the fever persisted for six weeks. During this time he took native medicines, but to no effect. His fever was quotidian. I gave him again one 15-grain dose in solution, followed by another 10 grains six hours after the administration of the first dose. The fever subsided, but the dermatitis returned and troubled him for weeks.

Case VII.—MAYIAPPA CHETTY, another Hindu Madrassé gentleman, of Canning Street, had fever, and was treated with quinine ; he took 40 grains in two days. He drew my attention to a sort of eruption, of the nature of urticaria, breaking out on his trunk and extremities. It had the same kind of itching as is commonly noticed in urticaria, but unlike it, the rash never faded, but persistently remained for four days, and was then followed by desquamation. He recovered ; no ointment was used. On a subsequent occasion this gentleman had hemiorania, and I gave him 20 grains of quinine. There was a return of the skin trouble, which continued for three days, and then faded after partial desquamation.

A MIRROR OF PRACTICE.

A CASE OF STERNAL DISLOCATION OF CLAVICLE.

BY Y. G. APTE, B.A., L.M.S.,

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FRACTURES are commoner than dislocations in clavicle. The *f*-shape gives it an enormous elasticity, and when that is exceeded by violence from without it undergoes a fracture at the weakest spot. In fact, a dislocation of the clavicle would have been very much rarer than even now, if its ends had had better joints. As it is, the articulations at both ends are very shallow; the sternum, as well as the deromion, present very flat surfaces. It is true the ligaments are short and strong, yet the poor articulating arrangement allows a rupture of those ligaments when indirect violence is exerted upon them, especially when at some leverage, and thus a dislocation is produced.

The following case is an instance of such a rare dislocation, and as it has some points not usually mentioned in text-books, I have thought it worthy of record:—

A young man of 20 was admitted into the Memorial Hospital one morning, complaining of severe pain about the upper part of chest, difficulty in breathing and swallowing as from pressure on the trachea and œsophagus from front. This had come on all of a sudden while he was wrestling the previous evening. His opponent threw him over on to the floor by a smart trick (by his description it appears he reached the ground shoulder first, which thus received the brunt of the fall), and he felt the left collar-bone dislocating with a snap (presumably of the posterior ligament). He tried massage, but it was painful. The next morning the patient came to hospital in a particular attitude—left shoulder raised up higher than the right, and perhaps a little forward, the clavicle correspondingly distinctly seen more vertical than its fellow, the elbow supported by the right hand, the neck slightly inclined towards right. The position of the shoulder was thus exactly opposite to what it is in a fracture of the clavicle, in the classical description of which the patient leans on the fractured side, and the shoulder is lower than its fellow.

Apart from attitude, there was a noticeable physical sign in a depression at where should have been the inner end of the clavicle. The hollow was a fair size, almost that of the thumb, into which the bone, traced from without inwards, seemed to disappear.

Diagnosis was therefore dislocation backwards of the sternal end of the clavicle.

It may be interesting to inquire why the shoulder was raised up and supported at the elbow by the other hand. Pain and general discomfort was increased if this support was taken away. It would thus appear that raising the shoulder in some way tended to relief. In a case of fracture, also, the patient supports the elbow; but his object is to prevent the weight of the limb dragging down the outer fractured half of the bone. In a dis-

location the weight of the limb will act through a whole uninjured clavicle. The reason for raising the shoulder must, therefore, have reference to something outside the clavicle. In dislocation backwards (or, for the matter of that, forwards,) the weight of the limb will give it an upward character also. Now if we consider the anatomy of the part, we can see that an upward dislocation means greater pressure on the surrounding parts. The trachea and œsophagus are not placed vertically in the neck and thorax. There is a considerable deflection from the vertical in the antero-posterior plane, so that in projecting out of the thorax they come forwards. Hence any foreign body (like the displaced end of clavicle), press as it does already in being dislocated backwards, presses all the more if there is an upward tendency to it. I believe it is to relieve this extra avoidable pressure that the patient supports the elbow, and he raises it higher than the fellow, in order that the inner end of clavicle being thereby depressed, even the pressure due to the backward dislocation may be relieved to a certain extent, as the lower the sternal end descends, the more does it get away from the trachea.

Treatment.—I attempted to reduce the dislocation by standing behind the patient, placing the knee as a fulcrum on the spine and stretching the shoulders backwards, whereby I hoped the anterior end of clavicle would spring forwards into its place by the leverage exerted on the outer end. But it did not succeed immediately; and as discomfort to the patient, who was feeling pain and a choking sensation, was a consideration, he was laid flat on a fracture bed. That position, even with a narrow spinal pillow, was not sufficient to reduce the dislocation—as it usually is to reduce a fracture. The patient was therefore chloroformed, and reduction was attempted by manipulation—placing the tips of the fingers in the supraclavicular space, just outside the origin of the sternocleidomastoid muscle and lifting the bone forwards. This succeeded at once. The bone was in position: the question now was how to keep it so? Attempting to put on a figure of eight bandage, drawing both shoulders back, the bone displaced and was now as easily reduced by the pressure of fingers above and behind clavicle. No kind of bandaging was found to answer the indications. Simple rest on a flat bed was good enough, but it was not sufficient to prevent the bone from dislocating by even slight direct pressure. To go one better than simple rest, the following plan was thought out. The inner end of the clavicle gives attachment to some fibres of the pectoralis major. If that muscle were brought into action, the insertion being fixed, the muscular tension will pull upon the clavicle actively; and this was found to be the case. With the arm extended at right angles to trunk, and the hand grasping an iron bar at the side of the bed, the dislocation could not be reproduced by pressure. The patient was therefore asked to keep a gentle hold upon the bar as long as he conveniently could. Even passive position was found afterwards to be effective. It was inconvenient to lie for hours with an outstretched arm, which got cold and numb. Therefore the arm was next morning gently brought to the side and kept there without affecting the position of bone. Perfect rest for two more days,

and the patient could move about his shoulder without causing a dislocation—even gentle direct pressure did not produce it, and therefore he was allowed to go home, with an injunction not to exert the limb for a few days and not to wrestle for a long period. Having experienced what a distress the dislocation causes, the patient may safely be expected to take good care of the bone.

The noticeable points in the case, not brought out in the text-books, are : (1) the attitude of the patient as contrasted with that in a case of fracture of the bone ; (2) the help of muscular action, active and passive tension, in keeping up a reduction.

HYDROPHOBIA : TWENTY-FIVE DAYS' INCUBATION.

By T. M. SHAH, L.M.,

Chief Medical Officer, Junagadh State.

MASUMI DENSHER, male, aged 30 years, was early in the morning of 14th December last defecating in a sequestered portion of jungle outside the town, where he was attacked by a hyæna. The left hand was badly hurt, the terminal phalange of the middle finger was dis-jointed, besides the infliction of several small lacerations and indentations upon the same limb. The patient got up, caught hold of the animal by its neck, and threw it in an adjacent nullah. The patient immediately repaired to hospital, where his wounds were dressed ; the phalange, which was adherent by a tongue of skin on the dorsal aspect, was replaced and retained by a splint of pasteboard.

He had fever next day, temperature rising to 103° ; the limb was painful, the phalange died and separated in a few days, and the wound was nicely granulating and healing.

The patient was a healthy man. The immediate danger of tetanus passed away, and the patient was quite convalescent. There was no suspicion whatever about the animal being rabid.

In the evening of the 8th January, exactly the twenty-fifth day after the infliction of bite, the patient felt uneasy ; he had yawning and disinclination to take his supper. He did not sleep and was convulsed, and was shouting and howling all the night.

9th—Hydrophobia was unmistakable. He was furious, but quite rational. He solicited to be tied up to his bed, lest he might hurt any one. He could neither drink nor swallow. He hid his face, lay on his stomach, but his teeth had convulsive twitchings. He was restless, and was cursing several times. He tried to drink medicine, but could only half empty the cup with the utmost effort.

He was placed in BOUSSON bath. He perspired profusely. He had enema of milk 1 lb, with chloral hydrate 20 grains.

10th—He was given bath three times, and had enema of milk and chloral four times, but he had no sleep. He shouted violently all night. In the course of the day the patient became more quiet ; his speech became thick and slow ; convulsions lessened, and he lay in bed quiet and helpless. He could not get up without help. He began to drink and eat in small quantity, though with sobbing and difficulty. His pulse became weak and imperceptible, though patient was perfectly conscious.

11th—General paralytic symptoms were marked. He could not support his head. Vision and speech were lost. He could not swallow. Expired in the evening after three days' hydrophobic illness.

ASTHMA DUE TO GASTRIC DERANGEMENT : RECOVERY.

By M. H. GHULAM JILANI, C. M. S.,

British Agent at Birjand (Persia).

One night I was called to see a Persian lady who was suffering from a severe fit of asthma.

History.—Widow, 35 years, had suffered from indigestion and painful menstruation for 18 months, followed by similar asthmatic seizures. Premonitory symptoms to these attacks were itching and a tingling sensation on three right hand fingers, on which there were eczematous patches, and also severe headache. The patient was slightly anæmic, with a temperature of 98°, pulse slow and weak, and much restlessness from the wheezing and dyspnoea.

Treatment.—Forty minims of chloroform was given immediately for inhalation, and afforded prompt relief : this was soon followed by vomiting, which relieved the stomach. I then prescribed 15 grs. of chloral hydrate every three hours. After the second dose patient was much better and fell asleep, feeling practically well next morning. As she had apparently reached her climacteric period, although only 35, my treatment was next directed towards relieving her indigestion and painful menstruation. With this object I prescribed :—

Pot. bicarb.	...	...	10 grs.
Tinct. gentian co.	...	...	℥ 30.
Tinct. calumbæ	...	...	℥ 30.
Spt. chloroform	...	...	℥ 20.
Aque. anisi	...	...	℥ 3i.

three times a day : diet simple, and walking exercise. After a week the acidity of the stomach had subsided and appetite had been partly restored. The following was then given :—

Sodii hypophos.	...	...	10 grs.
Ferri et ammoniæ cit.	...	...	5 "
Spt. chloroform.	...	...	℥ 20.
Aque	...	ad	℥ 3i.

to be taken twice daily. This was continued a fortnight, and afforded the patient much relief. As the menstrual period had now approached, I prescribed the following :—

Pulv. myrrhæ	...	...	20 grs.
Pulv. rhei	...	...	6 "
Ferri carb.	...	...	30 "
Ext. Aloes	...	...	15 "
Syr. Zingib	...	...	q. s.

eighteen pills : 2 pills twice daily. There was very little pain with the menses on this occasion, but it was small in quantity. After an interval of fifty days the asthma returned. The same treatment was adopted with success, and after the fit had been combated, the following mixture given for a week :—

Liq. arsenicalis	...	...	℥ 5.
Syr. aurantii	...	...	℥ 3i.
Decoct. cinchon	...	...	℥ 3i.

twice daily after meals. After this the hypophosphite prescription was repeated, and myrrh pills also repeated about six days before the monthly course. The patient recovered fully. The menses became regular, the eczema disappeared, the appetite and digestion became normal, and there were no further asthmatic attacks for eight months later, when the patient left for Mecca.

Indian Medical Record.

13th March 1901.

TOTAL EXCISION OF THE SCAPULA ALONE AND WITH THE ARM, AND PARTIAL EXCISION OF THE SCAPULA FOR TUMOUR.

THE *Philadelphia Medical Journal* reprints from its columns recently an admirable monograph by Dr. J. J. BUCHANAN, M.D., of Pittsburg, Pa., Surgeon to Mercy Hospital, on Total Excision of the Scapula alone and with the Arm (interscapulo-thoracic amputation) and Partial Excision of the Scapula for Tumour. We essay a review. Patience and research are factors prominent in this production, containing not only the general history and literature of the operation, but also apparently complete tables of cases since the introduction of the operation. The history of the operation is practically cœval with the present century, in the first-half of which the principles and limitations of the operation were established, and in the second-half of which these principles were modified and the operation extensively practised. Dr. BUCHANAN classifies cases into the following groups:—

I. Total excision of the scapula with simultaneous removal of the arm (interscapulo-thoracic amputation).

II. Total excision of the scapula subsequent to disarticulation at the shoulder-joint.

III. Total excision of the scapula at one operation, with preservation of the arm.

IV. Total excision of the scapula at two or more operations, with preservation of the arm.

V. Partial excision of the scapula for tumour.

VI. Partial excision of the scapula with simultaneous removal of the arm.

Group I.—The first operation was generally attributed to RALPH CUMING (1808—recovery), the next to CROSBY (1836—recovery), and two years later TWITCHELL, of Keene, N. H., and McCLELLAN, of Philadelphia, successfully performed similar operations. In 1887 PAUL BERGER recorded the operation at some length, and since then it had very properly borne his name. Since that time 124 operations had been performed with but 13 deaths, or a mortality of 10.5 per cent., which was eminently satisfactory. This operation had been performed for a variety of indications: (1) *For injury*, by shot wounds, explosions, avulsion, crushing accidents, burns, and in one case by the bite of a wild beast. (2) *For neoplasm*—sarcoma, chondroma and carcinoma, but most frequently the first mentioned, from the upper end of the humerus. It was a matter for discussion whether in such cases disarticulation at the shoulder-joint should not be done, or even a resection of the upper part of the humerus. A comparison could not definitely be made until more satisfactory statistics were available; but in their absence it could be said, for the interscapulo-thoracic amputation, (a) that the lymphatic vessels and veins were removed at a higher level; (b) that the shoulder muscles, especially the deltoid and the scapulo-humeral muscles, are entirely removed, and that they are

frequent sites of secondary infection in growths originating in the humerus; (c) that the glands and fat in the axillary and subclavicular region are more accessible and more thoroughly cleared; (d) that the resulting wound is much more favourable for primary union than is the stump containing the overhanging acromion and the retreating glenoid fossa; (e) that it was extremely improbable that the statistics of shoulder-joint amputation would show a lower mortality than 10.5 per cent.; (f) that the difference in the resulting deformity was insignificant; and (g) that an examination of the table of cases under the second head showed that in a number of instances a disarticulation had been followed by recurrence in the scapula or its muscles, and that, in these cases at least, an interscapulo-thoracic amputation at first would have been preferable. These reasons appeared to the writer to be sufficient to justify the removal of the scapula and part of the clavicle in every case of malignant tumour requiring amputation at the shoulder. (3) *For necrosis following injury*. (4) *For tuberculosis*. (5) *For progressive phlegmon*. (6) *For painful cicatricial stump*. (7) *For gangrene of arm*.

In considering the treatment of malignant growth involving the bone or soft tissues below the level of the shoulder-joint, there must be borne in mind: (1) that the arm being such an important member, no amputation should be considered if there is a fair probability of completely extirpating all diseased tissue without destroying the usefulness of the forearm and hand; (2) that, therefore, early and complete excision is to be advised in every growth of the upper extremity; (3) that malignant growths of any part of the humerus (except possibly the less malignant giant cell sarcomas) require removal of the entire bone; and (4) that, therefore, in such cases an interscapulo-thoracic amputation should be performed; (5) that an arm amputated at or above the elbow is of but little service; and (6) that, therefore, in every case of malignant disease (except the giant cell sarcoma) requiring amputation at or above the elbow, an interscapulo-thoracic amputation should be made as a primary operation; (7) that considering the great usefulness of a forearm stump, and the probability of recurrence under any circumstances, no amputation should be made above the middle third of the forearm unless both bones are diseased or the soft parts infiltrated.

Method of operation (BERGER'S).—(1) Make an incision over the outer two-thirds of the clavicle through all structures, including the periosteum. (2) Separate the periosteum from the middle third of the clavicle. (3) Excise the middle third of the bone. (4) Isolate the subclavian artery as it passes under the bed of the clavicle, tie it at two points and divide. (5) Elevate the limb, and isolate, tie and cut the subclavian vein in the same manner. (6) Start an anterior incision at the middle of the one already made, and extend it downward and outward to the anterior fold of the axilla; continue it backward across the inner surface of the arm at the level of the axilla, and extend it downward to the lower angle of the scapula. During this portion of the operation the arm should be kept at a right angle to the body. (7)

Deepen this incision in front, severing both pectoral muscles and exposing the contents of the axilla. (8) Sever the cords of the brachial plexus at the level of the upper stumps of the vessels. (9) Start a posterior incision at the outer end of the clavicular incision, and extend it directly downward over the spine of the scapula and prolong it till it meets the anterior incision at the lower angle of the scapula. (10) Dissect the skin and subcutaneous tissue backward to expose the muscles at the upper and inner borders of the scapula. (11) Cut the attachments of the trapezius muscle, the omohyoid, the levator anguli scapulae, the rhomboidei and serratus magnus, drawing the scapula out from the chest and passing the fingers under the muscles, wherever possible, as they are cut, controlling with forceps the vessels as they appear, the most important of which is the transversalis coli. (12) The bone can now be drawn away from the chest, and the entire limb removed by severing such attachments as remain. (13) Tie or twist all vessels. (14) Make one or more counter-openings for drainage tubes. (15) Suture accurately. In Dr. BUCHANAN'S own two cases, both of which were successful, the anterior incision was made before the ligation of the subclavian vessels, and the vessels were exposed under the severed pectoral muscles and followed up from below to the point of subsequent ligature. The advantage of this was that there was no difficulty whatever in isolating the vessels, and any embarrassment from hæmorrhage is avoided.

The writer then gives in tabular form a succinct account of the known cases since 1808 to 1900, embracing in all 181 cases. In these we are pleased to see noted four Indian cases—three the work of Dr. McLEOD, late of Calcutta, one of which resulted in complete recovery, and one the work of Dr. G. C. HALL, of Allahabad, a complete success, details of which are taken from our own journal, the *Indian Medical Record*. The operative mortality for all these cases was 29 in 181, or 16 per cent. Of 70 cases in which the remote result was known, 13 remained free from recurrence for three years or more, i.e., 18.6 per cent. cured beyond the 3-year limit. Of 15 cases of sarcoma in which the remote result was known, three remained free from recurrence for three years or more, i.e., 20 per cent. cured beyond the 3-year limit.

Group II.—In a table giving 31 cases in which total excision of the scapula was undergone subsequent to disarticulation at the shoulder-joint, the writer shows that 23 were due to malignant growths. Of these, 16 cases recovered from operation and with known history, one only remained free from recurrence beyond three years, i.e., 6.25 per cent. of ultimate cures.

Group III.—The operation of total excision of the scapula, with preservation of the arm, had been aptly termed by Sir WILLIAM FERGUSON the “*ne plus ultra* of conservative surgery.” It was certainly an operation most gratifying in its temporary results in malignant disease and in its permanent outcome in other conditions. Nearly all writers considered those operations total in which but a small part of the bone was left; but the gradations in the amount excised were so imperceptible that no satisfactory line could be drawn. The writer drew the line absolutely

between total and partial excisions, but appended a “combination statistic” to include “total and nearly total excisions.”

To **Group IV** a table was annexed showing a small number of cases in which the entire scapula had been removed at two or more operations. These, from an operative point of view, had at no period been more than partial excisions. The indications for entire removal of the scapula were morbid growths, necrosis, osteomyelitis, tuberculosis and injury. As to the question whether the entire scapula should be removed in all cases of malignant disease, the number of cases on which the opinion favouring partial excision in small growths was based was too small to reverse the principles which governed the treatment of malignant disease in other bones; but there was sufficient basis for following a conservative course in small growths till further statistics were available.

Method of operation.—The incision most generally adopted was the T-shaped, practised by SYME. The U incision had been recommended by others on account of sloughing. The flaps, having been shaped, are dissected from the underlying bone. The trapezius and deltoid are separated from their attachment to the acromion and spine of the scapula, and the supraspinatus separated near its insertion. The inner border is freed by dividing the levator anguli scapulae and the rhomboidei close to their insertions. The posterior scapular artery is now ligatured. The inner border of the bone is lifted from the chest, and the serratus magnus cut through close to its attachment. The upper border is then cleared and the omohyoid divided and the suprascapular artery tied: the arm is drawn downward and the acromioclavicular attachments separated and the coraco-clavicular ligament divided: the inner border tilted forward and the teres muscle and infraspinatus divided, the subscapular artery being secured: the biceps, coraco-brachialis and pectoralis minor are divided: then the capsular ligament of the shoulder-joint is severed with the long heads of the biceps and triceps and the scapula removed completely.

With reference to the remainder of this excellent monograph, we can afford but a brief summary. It is undoubted that interscapulo-thoracic amputation is primarily a very successful operation, especially when performed for neoplasm, the mortality in such cases, since the general practice of antiseptics, being only 8 per cent. Of the cases amputated for sarcoma and other malignant growths, whose subsequent history was definitely known, 18.6 per cent. were cured beyond the 3-year limit as indicated above. It was evident from the tables that, compared with other operations, excision of the scapula subsequent to disarticulation at the shoulder is less practised now than formerly, probably owing to the increasing popularity of the interscapulo-thoracic amputation. The immediate mortality of the consecutive operation for neoplasm since antiseptics had been 6.6 per cent., but the fact that the mortality of interscapulo-thoracic amputation during the same period was only 8 per cent., while the percentage of ultimate cures of malignant cases by the interscapulo-thoracic was 18.6 per cent., as against 6.26 per cent. after the consecutive excision, confirmed the wisdom of the general preference now displayed for the primary major operation. Notwithstanding the excellent functional result of total excision of the scapula, the tables indicate that it is not advisable to remove the entire bone if a satisfactory excision of less can be made. If, however, the entire body or more be implicated, then both the immediate and remote prognosis were improved by a total removal of the bone. Dr. BUCHANAN, in considering the question when a case of malignant growth may be taken as cured, points out that 93 per cent. of the known recurrences, or deaths from recurrence, took place during the first three years after operation, and that, therefore, it was safe to adopt the classical rule of considering as cured those patients who had passed three years without recurrence.

ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR THE YEAR 1899.

IV.

VITAL STATISTICS OF THE GENERAL POPULATION.

In this portion of his Report the Sanitary Commissioner gives us an insight into some of the conditions that influence the well-being of the native population of India.

The subject is a large and complicated one, with which the present machinery is quite incapable of dealing. Only the most salient features are dealt with, and with regard to these, the impossibility of obtaining reliable figures is freely admitted, and the many difficulties that beset the path of the vital statistician pointed out.

"In the following pages," to quote from the Report, "little more is attempted than a broad survey of the outstanding features of the figures relating to births and deaths in the different provinces. These prefatory remarks will prepare the reader for general indications only of the ebb and flow of the chief vital phenomena, the resultant of many factors which are lost or obscured in the general movement; the material for refined speculation on some most interesting problems is wanting."

BIRTH STATISTICS.

The number of births registered in 1899 was not only higher than the average for the previous five years, but also higher than in 1898. This increase occurred in every one of the ten provinces into which the empire is divided.

There were altogether 1,670,491 more births registered in 1899 than in 1898. This is an enormous increase, and is attributed to the increased prosperity of the people, and as an indication of the generally higher standard of health which marked the previous year. The Sanitary Commissioner is at some pains to trace the influence of famine, religion, habits, etc., upon the birth-rate.

The infantile mortality statistics are evidently very imperfect, and the report mentions the extraordinary contrasts exhibited by them. Of course they are higher in cities than in rural districts; the mean figure for Bengal is 184.8; that for Calcutta 366.8. In the Bombay Presidency the mean figure is 192.7; in the city itself we have the enormous figure of 798.6.

DEATH STATISTICS.

In six of the ten provinces the death-rates were higher than in 1898; but then 1898 was an exceptionally healthy year. In the Punjab, Madras, Assam, and Coorg the rates were even lower than in 1898.

The death-rate varied from 20.1 per 1000 in Madras to 39.9 per 1000 in Berar. The figure for Bengal was 31.2.

GENERAL DISEASES.

Cholera.

Cholera was far less prevalent than usual: the death-rate was only 0.78; against a five-year average of 1.64.

Anti-cholera inoculations were continued at the Puralia and Balkeo ooclie depôts in Bengal, but the

number of cases fell off owing to the absence of the disease in an epidemic form.

Dr. POWELL, who is well known as a careful observer, is quoted as giving the following testimony in favour of HAFKIN'S cholera prophylactic method:—

"There have been 198 cases with 124 deaths among 6,549 persons not inoculated, compared with 27 cases and 14 deaths among 5,778 inoculated individuals. Had the incidence been the same in both classes, the inoculated would have had 174 instead of 27 cases, and 109 deaths instead of 14; the mortality, therefore, among the non-inoculated was nearly eight times greater than among those inoculated."

As we have remarked on a previous occasion, the seasonal incidence of cholera in Madras is usually very well marked, and on this subject the Report comments as follows:—

"The Sanitary Commissioner of Madras gives interesting tables showing the seasonal incidence of the disease in the different areas, which are divided into two groups in accordance with their geographical positions, and the consequent climatological conditions, as mainly influenced by the two annual monsoons. As he has been able to show in previous reports, the incidence of mortality is greatest in the south-west monsoon districts during the progress of the south-west monsoon, that is to say, during the June to September period; whereas in the north-east monsoon group the mortality is greatest during the prevalence of the rain current, which specially affects these particular areas, that is to say, during the last quarter of the year. Whatever view be held as to the effective relation between rainfall and cholera, there can be little doubt that, year after year, a definite relation in time is established in the two contrasted areas in the Madras Presidency—a relation, moreover, which finds supporting evidence in the seasonal prevalence of the disease in other provinces, and which is opposed to the usual sequence of events in Lower Bengal."

In the province of Coorg there was not a single death from cholera during the year; this, however, is nothing unusual in this favoured province, for the same thing has been recorded in 17 out of the last 21 years.

In Bombay cholera caused 8,579 deaths throughout the presidency. In Lower Burma there were 4,492 deaths; in Upper Burma the deaths in twelve selected districts numbered 2,050.

Interesting details are given of the more important cholera outbreaks in jails and amongst troops, which considerations of space prevent us reproducing.

Further evidence was afforded of the value of judicious movement of bodies of men among whom the disease had broken out, though it is recognised as only one of a series of precautions that have to be taken.

Small-pox.

The mortality ratio was reduced by 17 per cent. from the previous year, and by 43 per cent. from the quinquennium—1894-98—which shows satisfactory progress.

Ignorance, prejudice and the occasional prevalence of the old custom of inoculation help to keep the figures up in many places.

Cuttack was severely affected, and the Civil Surgeon reports that the people resort to inoculation in Salepur, Jagatsingpur and Jaipur: cases were sent for trial, and heavy fines inflicted on conviction.

In the Brahmaputra Valley many large sections of the people entirely refuse vaccination, and it cannot legally be forced upon them.

In Madras the old scare about plague inoculation had its effect, the people hopelessly mixed the two operations, and the opinion existed that plague was being spread amongst the people under the guise of vaccination.

In Coorg the same fear existed, but the people are reported to have recovered their confidence in vaccination.

In Bombay attention is directed to the good vaccination work done throughout the presidency. In Burma the importation of small-pox and its dissemination throughout the province are attributed to the unprotected coolie immigrants from India, large numbers of whom come to the country during the harvest season to reap the rice crop; its further spread is assisted by the practice of inoculation, which is said to be general throughout the province.

Plague.

There was a great increase of plague mortality in Bengal, the Central Provinces, Bombay, Madras, Mysore, and Hyderabad.

The number of reported deaths during the year was 139,009, against 116,285 in 1898.

A considerable space is allotted to a discussion of the part played by animals and insects in the spread of the disease. Particular attention is now paid to the flea. We learn that there are from 60 to 80 different kinds of fleas, and that nearly every animal rejoices in its own particular flea. It is an interesting subject for future investigation to what extent, if at all, fleas peculiar to one animal will prey upon another.

The general opinion appears to be that the possibility of the agency of insects could not be disregarded, yet that it was not distinctly proved.

The following, said to have been written by a member of the German Plague Commission, sums up very well our present knowledge on the subject of the transmission of plague:—

"The plague is spread in two ways—first, from man to man: (a) by contact, and (b) by inhalation; secondly, from the surroundings of man to man; (c) by contact with infected inanimate objects; and (d) by the transfer of the contagion from rats to man. We have no difficulty in explaining (a) as the penetration of plague germs through wounds or scratches, and (b) as the inhalation of minute germ-laden drops of moisture from the lungs of a plague patient. But the second method is less simple. No doubt contact with infected clothes is to be explained as in (a). But it is more difficult to understand why living among infected surroundings, i.e., in an infected house, should cause infection without there having been any proved "contact." In this connexion we have the disease of rats as an important factor—a factor not similarly observed in the case of any other infectious disease.

Rats generally suffer from a form of plague which occurs in man very rarely, if at all, namely, plague of the intestines. When thus diseased, they evacuate great quantities of plague germs. It is probable that numbers of plague cases among human beings are due to contact with evacuations of diseased rats, e.g., in the case of the flooring thus contaminated being trodden on by the naked foot. Less probable is the inhalation of such germs in the floor dust, because plague germs are easily destroyed by desiccation. Children often infect themselves by crawling on the floor, and then putting their fingers in the mouth, thus getting plague with neck buboes. A second possible method in which rats might convey the plague to human beings is by fleas. It is scarcely to be doubted that a flea which has bitten a sick man, and then bites a healthy man, can thus inoculate with the plague, though it is not clear that this method is as frequent as many investigators—e.g., the French school—are inclined to think. This much is certain, namely, that there are from 60 to 80 different kinds of fleas, and nearly every animal rejoices in his own particular kind of flea; so also rats. Now it is understood that fleas go from beasts to man; but it is not so certain that they will all bite man. No doubt a flea need not actually bite in order to infect. If it causes itching by crawling on the skin, and the person concerned rubs at himself to allay the itching, he may conceivably rub the infected blood from the flea into his own system. It is also asserted that the fleas infesting man are of catholic tastes, i.e., go over to beasts, e.g., rats, and then return, infected, to human beings. Infection by fleas becomes rather doubtful through the fact that in India the relatives of the sick have often, though not sick themselves, been taken to the hospital and have rarely fallen ill, though they most probably have brought fleas in their clothes which might have conveyed the disease from the patients to themselves. It is also on the flea theory of infection, not easily intelligible, why doctors and nurses are so rarely attacked. The question of infection of plague by fleas cannot, therefore, be readily answered at present. The fact that when infected houses are once well cleaned and aired, they do not give rise to further attacks, also speaks against the flea and bug theory, for these are not so readily driven out from houses."

Fevers.

But a short space is allotted to fevers. The number of deaths rose from 3,868,781 in 1898 to 4,126,384 in 1899, and this latter figure is below the five-year average.

Regarding fevers in Madras town, a subject to which we called attention some time ago, we read: "It must not, however, be considered that malaria is the sole cause of fever in Madras town. Typhoid fever is by no means uncommon." This was exactly our contention.

A special portion of the Sanitary Commissioner's Report is devoted to a history of vaccination and another to military and civil sanitary works: they do not, however, call for any special notice.

COMMENTS AND NEWS.

DEATH OF DR. DONALD MORISON OF BENGAL.

By the death of Donald Morison, M.D., late of Rampur Boalia, Bengal, our Society loses one of its corresponding members, the English Presbyterian Church a valued missionary, and India a true friend. Dr. Morison returned last June from India in a very poor state of health, and settled with his wife and nine children in Scotland. He made apparently good progress towards recovery, and was looking forward with much pleasure to a return to his beloved field of labour, when, on the 12th December, he had a serious relapse. He at once felt that his time was come, and gave parting messages to all his children. He was taken to the Glasgow Hospital for an operation, but died there on the 14th, making a triumphantly happy end.

Of Dr. Morison's devoted labours as a medical missionary, it will be for others to speak with a competence that we cannot claim. But for the anti-opium cause we can say that it has lost in him one of its most ardent, most enlightened, and most useful advocates. His interest in this question was the result of a decision of our Committee. Until 1889 it had been generally supposed that the opium curse was practically confined to China, except that the ravages caused by it in Burma had become known through the publication of Sir Charles Aitchison's report. Notwithstanding reports that had from time to time appeared as to opium-eating in Assam and Orissa, and smoking in the opium-dens in Calcutta (described by Mr., now Bishop, Thoburn in the *Indian Witness*), it was generally understood that the Indian Government had acted upon the policy laid down by the Directors of the East India Company in 1817, when, in sanctioning measures adopted by the Bengal Government for the supply of opium "for internal consumption," they explained that this sanction was given, "not with a view to the revenue which they may yield, but in the hope that they will tend to restrain the use of this pernicious drug . . . to prevent its introduction into districts where it is not used, and to limit its consumption in other places as nearly as possible to what may be absolutely necessary." But in the year 1889 Mr. W. S. Caine called attention to the scandal of the opium-dens at Lucknow in a striking article; about the same time the *Bombay Guardian* called attention to similar evils in Bombay. The Committee felt it desirable to obtain further information on the subject, and accordingly decided to issue, through the various Missionary Societies at work in India, a circular of enquiry. Mr. Donald Matheson, then Chairman of our Committee, was the regular correspondent, on behalf of the English Presbyterian Church, of Dr. Morison, its missionary in Bengal, and wrote to him on the subject. Dr. Morison's first reply was to the effect that "he knew very little about it, but he would make enquiry," although he had for 12 years been labouring as a medical missionary in the district of Rajshahi. But when he came to make these enquiries, and visited for the first time the licensed opium-dens, he found that the terrible habit of taking opium had, to use his own words, "been growing up around me all unnoticed and unknown," that it explained various facts which he had observed without understanding their bearing, that the number of opium-smokers was "far greater" than he had suspected, and that the habit was "spreading at an alarming rate."

The striking letter in which Dr. Morison recorded his visits to the opium-dens was forwarded by Mr. Matheson to the *Times*, and published by it. Reproduced by our Society,

and followed up by other similar testimony from various parts of India, it undoubtedly contributed to the Parliamentary victory gained by Sir Joseph Pease in 1891, and to the decision of the Indian Government, first, to withdraw licenses from opium-dens (*i.e.*, places where opium was allowed to be smoked on the premises), and, subsequently, to cease the issue of licenses for the sale of opium-smoking compounds. For these valuable reforms the people of British India owe a lasting debt of gratitude to our departed friend.

When the Royal Commission on Opium—cleverly designed and used by the Indian Government as a means of defending its opium revenue—visited Calcutta in the autumn of 1893, Dr. Morison came down thither to give his valued services, both as a witness and as an adviser. His long medical experience in one of the most malarious districts of India enabled him to expose the fallacy put forward by the official medical witnesses, and eagerly embraced by Sir William Roberts, as to the use of opium as a prophylactic against fever. He also paid a visit to Orissa, one of the chief opium-consuming districts in India, and brought back from it valuable evidence, which he laid before the Commission, disproving the theory that there it was used on account of any such protective utility. The evidence was rejected by a prejudiced Commission, which (with the exception of Mr. H. J. Wilson, M.P.) was influenced by the Marquis of Lansdowne's unconstitutional warning against interference with the Indian revenue and by the strong pressure of Indian official opinion, and closed its ears to the strong evidence of independent witnesses, native and missionary, as to the evils caused by the indiscriminate sale of opium in India. But the day will come—for truth is stronger than error in the long run—when Dr. Morison's calm, scientific evidence will be justified by the verdict of posterity. In that day India will doubtless honour the memory of one who loved her enough to boldly urge her protection from the insidious curse of opium, at the cost of no little social contumely, before which even missionaries too often shrank back.

Dr. Morison was a frequent and most valued contributor to the columns of the *Indian Medical Record*. We mourn his loss and offer our respectful sympathy to his bereaved family.

BEWARE OF THE MOSQUITO.

THE Liverpool School of Tropical Diseases has issued a "memoir" which is full of interest, as it relates the story of the practical attempt of a body of experts to solve the mystery of malaria. The following are the rules given as the result of the observations which have been made:—

- (1) Avoid being bitten by mosquitoes.
- (2) Kill mosquitoes and their larvae, especially *anopheles*.
- (3) Invariably use mosquito nets.
- (4) Empty all pots and vessels containing stagnant water at least once a week.
- (5) Brush out with a broom all puddles containing larvae.
- (6) Use punkahs.
- (7) Keep cisterns and wells covered.
- (8) If useless collections of water in which mosquitoes breed cannot be filled up or drained, recourse must be had to methods of killing the larvae chemically, or, as the writers state, use *culicicides*.

The simplest *culicicide* is kerosine oil, applied by painting the pool with a rag fixed on a stick and first dipped in a pot of oil. Quicklime and fresh tar are also effective, but all these either involve too lengthy a process, or would harm other life besides that of the mosquito larvae. The inventive genius of the chemist still has to discover the ideal *culicicide*.

It should be some cheap solid or powder which kills larvae but not higher animals, and dissolves so slowly as to render a pool uninhabitable by larvae for a long time.

The mosquito net recommended is one which has the roof as well as the sides made of netting, not of long cloth, which often is used. A loose frill or valance sewn on the net a foot above the mattress, and also tucked under it, is suggested as an additional precaution. It is becoming increasingly known that mosquitoes, although not the cause of malaria, are the means of introducing it into a healthy subject. Of all the species of mosquito it is the female of the *anopheles* which causes the trouble. In these the proboscis is long and thick, the wings are generally spotted, and when at rest on a wall the body is held almost horizontal. The larvae are generally formed in natural collections of water where they float flat on the surface. If these are destroyed, therefore, the nurseries of the young *anopheles* are destroyed also; hence the necessity for draining swamps is at once apparent on scientific grounds. The good resulting from such a procedure has long been endorsed by practical experience.

The journal of The Sanitary Institute, which has just been issued, contains a long article by Prof. A. CELLI, of Rome, on researches on the propagation of malaria and the precautions to be adopted in unhealthy districts. After describing some of the opinions of other investigators, he gives reasons for deciding that the dappled-winged gnat known as *anopheles* is the propagating agent. He then describes the life-history of the insect, and sets out a series of corollaries for the Hydraulic Engineer, for the Sanitary Engineer, and for the agriculturist, in which are detailed the steps that can be taken to prevent the multiplication of the *anopheles*, and other measures against the spread of the disease. The concluding portion of the paper gives instructions for the self-protection of labourers in malarious places. The paper is illustrated from some of Prof. CELLI's photographs showing methods protecting houses and shelters.

APPEAL FOR FUNDS FOR THE ENDOWMENT OF QUEEN-EMPRESS OR VICTORIA SCHOLARSHIPS.

THE late Queen-Empress was Patron of the National Association for Providing Female Medical Aid to the Women of India, otherwise known as the Dufferin Fund; and Lady CURZON, the President of the Fund, has issued the following appeal for funds for the endowment of Queen-Empress or Victoria scholarships by which to commemorate the late Patron of the Association. The terms of the appeal are given as follows in the daily papers:—

The Central Committee have already placed on record their deep sorrow at the death of the Patron of the Association. As a mark of respect to Her Majesty's memory, the general annual meeting, usually held in Calcutta, has been cancelled. Being, therefore, deprived of the chief opportunity afforded me of publicly appealing for assistance, I now do so through the Press. Few people, I think, are aware how keen a personal interest the Queen-Empress has always taken in the affairs relating to this movement. Its existence was due to Her Majesty's initiative. She has annually presented gold and silver medals to students at the chief Universities in India, and has on several occasions been personally addressed on questions connected with the policy of the Association. A matter in which the Queen-Empress took special interest, which the Dufferin Fund has up to the present been unable to sufficiently encourage, owing to lack of funds, regarding which about eighteen months ago she

telegraphed to me her hope that we should be able to promote its success, was the training of a greater number of native midwives to work in *zananas*. Her Majesty fully realised the difficulty of persuading the women of this country to leave their homes, and was always anxious that we should encourage trained midwives to practise in outlying districts. I now hope, if it is possible, to establish an Endowment Fund, the interest accruing from which shall be solely used in forming Queen-Empress or Victoria scholarships for training native midwives of suitable caste in hospitals or schools which lie nearest to the localities in which they would be ultimately engaged. I feel sure that there will be many persons who would like to help, in founding these scholarships, to contribute to the object which Her Majesty was known to have very much at heart, and which will do much to relieve the suffering women in India. The fact that I have received numerous testimonies of grief felt by the women of this country at the death of their beloved Sovereign leads me to issue this special appeal, in the hope that it will meet with their sympathy. It may be in the power of some native ladies of position and influence to give me their assistance by organising the collection of subscriptions for the above-named object. All contributions may be forwarded to me personally, and will be duly acknowledged. I shall be grateful to any persons, European or Indian, who will lend their help in the various provinces and cities.—
MARY CURZON.

AMERICAN TRIBUTE TO THE PASSING OF A GRACIOUS SOVEREIGN.

THE *New York Medical Journal* says:—There is probably no person in the world whose fatal illness could have caused the widespread sorrow and sympathetic reverence and respect occasioned by that of Queen VICTORIA. The termination of her long and arduous life, which, in the ordinary course of events, could not have been long delayed, forbade us to expect much from the greatest resources of medical aid and skill at her disposal; but the efforts of those who were privileged to minister to her—privileged, not because she was a queen, but because, being a queen, she had been all that she was in every capacity of life—have been followed closely with the warmest prayers of the world at large in their support, and with its tenderest sympathies. For this reason the names of Sir THOMAS BARLOW, Sir DOUGLAS POWELL and Sir JAMES REID will be preserved in history, irrespective of their services to medical science in general, as those who bared in her last moments for the most universally beloved monarch that ever sat upon a throne. The medical profession in all countries will ever cherish the memory of a sovereign who constantly interested herself in the relief of suffering, who held medicine in high esteem, and who was the first British monarch to publicly recognize the importance of medical sciences by conferring a patent of nobility on a medical man.

DR. DEWAN GANPAT RAI.

It will be of interest to many of your readers to learn that Dr. DEWAN GANPAT RAI, late of Lahore Medical College, who on return to England from the Thirteenth International Medical Congress, held in Paris in August 1900, took charge of an old-established practice of a well-known surgeon in the north of England, was on the 18th January last appointed to the office of Deputy Medical Officer of the Bishop Auckland District and Workhouse of the county of Durham in England. The Workhouse, or the Union Infirmary, contains 250 beds. Dr. GANPAT RAI has also been appointed Deputy Public Vaccinator of the District, for which he had to show proof of high proficiency in the practice of vaccination. In addition to these duties Dr. GANPAT RAI is Surgeon in charge of three collieries, employing over two thousand men. Within six months

of his arrival in England Dewar GANPAT has obtained the Tripple qualification of the University of Edinburgh, with honors, and headed the list of successful candidates, and ever since he has been engaged in a special study of surgery. He is now intending to go up for the next I. M. S. Competitive Examination.

TRAINING OF MALE AND FEMALE NURSES IN MADRAS.

THE following notice appears in the Fort St. George Gazette of Madras :—

In view to the efficient training of women as nurses and ward attendants and of men as ward attendants for employment in private and up-country hospitals, the Government is prepared to admit probationers of these classes recommended by local or private bodies, such as the Lady Dufferin's Fund Committee, into the General Hospital Training School for Nurses, on the understanding that such bodies shall arrange to defray the (i) pay, (ii) ration money, (iii) clothing, travelling expenses, &c., of such probationers. Volunteers who are willing to pay all necessary expenses, and who are approved by the Matron Superintendent, will also be admitted.

2. Quarters (for nurse probationers only) will, as far as possible, be provided by Government at the General Hospital, but there is no objection to other arrangements being made by pupils subject to the approval of the Matron Superintendent.

3. All applications should be made to the Matron Superintendent, General Hospital, Madras.

I. M. S. COMPETITIVE EXAMINATION.

THE following is a list of the successful candidates at the I. M. S. Competitive Examination held in London on February 8th :—

	Marks.		Marks.
A. G. McKendrick ...	3,449	C. B. McConaghey ...	2,611
G. E. Charles ...	3,392	W. D. Bitchie ...	2,591
J. W. Little ...	3,090	G. O. L. Keraus ...	2,590
St. J. Moses ...	3,003	E. W. Browne ...	2,575
N. E. H. Scott ...	2,911	E. C. Hepper ...	2,567
H. B. Foster ...	2,862	F. T. Thompson ...	2,486
G. B. Butt ...	2,842	J. W. Illius ...	2,478
C. E. Southon ...	2,788	J. B. Christian ...	2,417
H. R. Nutt ...	2,780	L. P. Brassey ...	2,391
J. K. S. Fleming ...	2,740	G. Fowler ...	2,357
H. W. Illius ...	2,704	A. Murphy ...	2,219
F. W. Sumner ...	2,703	S. Bose ...	2,212
J. A. Barnes ...	2,700	P. L. O'Neill ...	2,188
J. Husband ...	2,627	C. F. Marr ...	1,896

In the advertisement announcing the examinations, it was stated that twenty-nine appointments would be offered, and it will be observed that twenty-eight have been given.

Among the successful candidates are five Anglo-Indians, one Armenian and one Bengalee.

OPOTHEAPY IN CHINA AND INDO-CHINA.

JULES REGNAULT (*Revue de Medecine*) says that in these countries the testicular juice of the tiger is used for impotence. Under the supposition that the eyes and the liver are closely connected functionally, mosquito eyes mixed with pig's liver is given for conjunctivitis. Pig's liver is also given for icterus, congestion of the liver, and hepatitis. Goat's liver mixed with various plants is administered for diseases of the eyes or of the liver. Bear's gall is highly esteemed for the same purposes, but is very expensive. Pig's lungs are used for cough, especially in chronic bronchitis. Pig's kidneys are prescribed for renal affections. For gastritis the coats of a young chicken's gizzard are supposed to be curative. Women take pieces of dried placenta to facilitate labor. Human blood is supposed to be strengthening, and at executions the executioner, and even the spectators, eat the blood, the liver, and the bile of the victim to increase their courage.

EXECUTION BY POISON.

ACCORDING to the *New York Medical Journal*, Mr. H. B. Passager moved in the Indiana House of Representatives on January 21st that the method of executing criminals be changed from hanging to the administration of morphine. The motion was tabled. The idea of execution by poison is not of course a novel one. The method was in common use in antiquity, and various agents were used. The most

famous instance was the death of Socrates by hemlock. In the very improbable event of Mr. Passager's Bill becoming law in Indiana, will the process be called "toxication?"

SHORT ITEMS AND PERSONALITIES.

As part of the scheme which is still under consideration for improving the conditions of service in the Jail Department, the Government of India have ruled that Commissioned Medical Officers who elect to serve in that department shall be given the option of reverting from it at any time within the first two years of their service in it. It is hoped that this concession will tend to remove any reluctance to join the Jail Department which may be due to the fact that, under existing orders, a first decision to join it cannot be reconsidered.

In view of the inconvenience which has resulted to the civil medical administration from the demands made for medical officers for the China Expedition, instructions have been issued by the Government of India for the preparation of a list of stations at which two military medical charges could be held by one officer. The object in view is a readjustment of the shortage, resulting from future mobilization of troops for field service, between the Civil and Military Medical Departments.

The following is a list of the present medical members of the Bombay Corporation :—

Sir Balchandra Krishna ; Lt.-Colonel H. P. Dimmock ; Dr. N. N. Karak ; Dr. Cowasjee Hormusjee ; Dr. A. G. Viegas ; Dr. E. F. Underwood ; Dr. D. A. D'Monte ; Dr. D. M. D'Silva ; Dr. D. B. Master ; Dr. Ismail Jan Mahomed ; Dr. C. E. Dadachanji.

In his report to the Secretary to the Director-General, Indian Medical Service, Dr. Alfred Lingard, M.B., M.S., D.Ph., describes that the inoculation of cattle, either with the protective serum and virulent rinderpest blood, called *Serum-Simultaneous method*, or with serum alone, according to the circumstances of the disease, affords permanent immunity to cattle from attacks of rinderpest.

His friends, who have been so anxiously concerned about the serious illness of Military Assistant Surgeon Du'Bois, will be pleased to learn that he is now convalescent and is making satisfactory progress towards recovery in the Presidency General Hospital, Calcutta.

*It has been settled by the Nizam's Government that Colonel Gimlette, I.M.S., who succeeds Colonel Lawrie, I.M.S., as Residency Surgeon, will also be in charge of the Nizam's Medical Department, and draw full allowances.

Government have sanctioned the grant of leave to officers of the I. M. S., in either military or civil employ, to the extent that officers can be made available to replace absentees.

The special rates of mileage allowance admissible in Assam and Quetta are extended to Hospital Assistants in Burma on transfer from one station to another.

It is probable that Colonel Braufoot, I. M. S., now in Burma, will succeed Colonel McGann, I. M. S., as Principal Medical Officer at Bangalore.

Military Assistant Surgeon A. Beale, I. S. M. D., is transferred from plague duty, Bussire, to military duty, Sind District, with effect from the 25th February 1901.

The services of Major Davies, R.A.M.C., have been recommended for another year as sanitary expert at Army Headquarters.

Colonel J. T. McGann, I. M. S., Principal Medical Officer, Bangalore, has proceeded to England on furlough.

Lieutenant Boulton, I.M.S., with two Hospital Assistants, has been ordered on field service in Somaliland.

Current Medical Literature.

MEDICINE.

Acute Dilatation of the Heart in Diphtheria, Influenza, and Rheumatic Fever.

D. B. LEES (*British Medical Journal*) gives the following clinical indications in cardiac degeneration so often resulting from diphtheria: (1) Feebleness of the pulse wave. (2) Feebleness and diffusion of the cardiac impulse. (3) Extension of the cardiac dulness to the left. (4) Feebleness of the first sound at the apex, with accentuation of the pulmonary second sound. (5) A marked accentuation of the aortic second sound. The heart should be carefully examined, especially by palpation and percussion. Light percussion easily reveals the heart's limits. The virulence of diphtheria is more intense in children than in adults. Herein is the marked contrast to the behavior of influenza, which is far more dangerous to adults. In influenza rapid dilatation of the heart frequently occurs within a day or two after the onset of the disease. In rheumatic fever, even in the most subacute attacks, acute dilatation of the heart seems to be invariably present. It is much less dangerous than that of diphtheria or of influenza, in spite of its greater frequency, this difference depending upon the different effect of the several toxins upon the cardiac muscle. In fatal cases of diphtheria and of rheumatic myocarditis and fatty degeneration, or even destruction of cardiac muscle, are often found; probably similar lesions exist in influenza.

Heredity in Diabetes Mellitus, with a Report of Six Cases occurring in a Family.

J. HALL PLEASANTS makes this report, and observes certain peculiar features of the family type of the disease, as follows: (1) The occurrence of the disease in an uncle, aunt, or cousin, while the parents escape, is very often observed. This may be conveniently spoken of as the "collateral inheritance" of diabetes. In the same way a grandparent may be diabetic, while the parent escapes. (2) When successive generations are affected, there is a tendency for the disease to develop at a progressively earlier age. (3) When more than two members in the same generation are diabetic, there is a tendency for the disease to appear at approximately the same period of life. (4) While hereditary diabetes developing in the first two decades is often of a severe character, the cases developing later in life are generally of a mild type. (5) In a certain number of cases the disease has appeared in the children prior to its occurrence in the parents. (6) There is frequently a neuropathic tendency in diabetic families. Cases are recorded in which several children were diabetic, while the others suffered from various psychoses. (7) Obesity is often a characteristic of families in which diabetes occurs.

Cure of a Case of Hypertrophic Alcoholic Cirrhosis of the Liver.

M. LUZZATTO (*New York Medical Record*) reports a true case of hypertrophic cirrhosis of the liver due to alcoholism in a man fifty-five years of age, who was entirely cured with milk, potassium iodide and diuretics. The writer says the cure probably depended upon the regeneration of the damaged cells of the liver. He also states that alcoholism is by no means the only cause of cirrhosis of the liver, and that alcoholic cirrhosis of the liver is curable; the hypertrophic form more often, but the atrophic form also.

Arterio-sclerosis: its Clinical Aspect, Symptoms, Course, and Treatment.

J. W. RUNNERS says that the heart is the chief organ affected by this disease. He divides the disorders caused by arterio-sclerosis into three chief classes: (1) Syphilitic sclerosis attacking the large and medium-sized arteries, characterized by intense local symptoms, without general circulatory disorders; (2) sclerosis of the type of granular atrophy (arterio-capillary fibrosis), a general affection of the small arteries and capillaries, characterized by slight local symptoms, but by serious general circulatory disturbances; (3) the sclerosis of old age, a general affection of the large and medium-sized arteries, characterized by mixed symptoms of the various organs and disorders of the general circulation. These three varieties may be found combined.

Treatment of Epilepsy in its Inciency.

DR. W. P. SPATLING, (*Buffalo Medical Journal*) lays down certain broad principles which he summarizes as follows:—

1. Make an early differentiation of the type of epilepsy from which the patient is suffering.
2. If it be reflex epilepsy, or if the child be suffering from epileptic phenomena, the chances of cure are much greater than if the case be one of genuine epilepsy.
3. If genuine epilepsy be present, we are in a position to give a much more accurate prognosis as to the ultimate outcome, and to apply better principles in the treatment of the case.
4. Remove, as far as possible, parental sympathy from the treatment of the child, for if allowed to assert its way, this usually does more harm to the child than good.
5. Endeavor to keep from the young epileptic the many patent nostrums that, when taken by him, only aggravate the disease by first masking the true symptoms of the same; second by destroying or impairing the functions of the gastro-intestinal tract.
6. If the seizures be localized and a given part of the body chiefly involved at the time of convulsive phenomena, and suffers therefore exhaustion or partial paralysis as the result of the same, apply physical means for its correction as soon as possible, for it will only be by these means that such a difficulty can be overcome.
7. We must learn to place great value on little things in studying the etiology and treatment of this obstinate malady, and in illustration of this point let me say that it was my pleasure, in January of the present year, to see in the Pathological Museum in Berlin, under direction of Dr. RUDOLPH VISCOW, six cases in which the hæmorrhage had occurred in capillary form in the brain. Dr. VISCOW, without the use of any magnifying power, had no difficulty in locating the seats of these minute hæmorrhages. He told me that these small hæmorrhages, with their results, had caused death.

Two weeks later I saw Dr. HUGHLINGS-JACKSON in London, and I asked him what, in his opinion, would be ultimately found to be the cause of perhaps the larger number of the so-called cases of idiopathic epilepsy. His reply was that they would be found to be due to capillary hæmorrhage in the brain, followed by the minute spots of softening. I at once associated what I had seen on the *post-mortem* table in Berlin with the remarks of Dr. JACKSON, and my regard for small things in medicine grew a hundredfold.

SURGERY.

Some Considerations regarding Sympathetic Ophthalmia.

J. SANTOS FERNANDEZ (*Cronica Medico-Quirurgica, Havana*) presents 17 cases in which sympathetic ophthalmia was suspected with more or less foundation. He recognizes that in few cases the symptomatic cycle is so complete as to authorize the positive diagnosis of the affection, and undertakes to show the difficulties which beset the practice of ophthalmology, and which occasionally intervene from the timidity of patients. In four of the individuals there was no traumatism, and although enucleation was advised from fear of sympathetic ophthalmia, the staphyloma, iritis, or panophthalmitis was cured by appropriate remedies in three without enucleation, while in one operation was done to overcome pain. Non-operative traumatism existed in five cases in the primarily affected eye. In these it was that the typical symptoms always seen in sympathetic ophthalmia were encountered. In the remainder the traumatism were operative (extraction of cataract), and in these occasionally one could confirm, without ground for doubt, the remote sympathetic influence of syphilis, rheumatism, or some accidental affection; from all of which it is deducted that enucleation may always be practiced to relieve suffering and prevent loss of time to the patient, but that, when there is no previous traumatism or painful inflammatory symptom in the damaged eye, we cannot affirm that we perform the operation to combat possible or declared sympathetic ophthalmia.

New Theory in Regard to Concussion of the Brain.

D. B. BONOALI sums up his article as follows: (1) In grave cases of concussion speedily becoming fatal, the shock to the cells of the cerebrospinal axis and of the bulb causes so great a molecular disturbance that the individual neurons become incapable of regulating the nutritive and dynamic exchanges, which results in a suspension of the nutritive and secretory functions, causing violent death of the neurons from lack of nourishment and from intoxication, and for this reason there is complete absence of any lesion in the nerve tissue. (2) In cases of concussion in which recovery occurs in a few hours or days, and in which the nerve cells show the lesions described by observers, there is a transitory suspension of the nutritive and dynamic exchanges with temporary suspension of nourishment, and a transitory intoxication. The neurons appear to be in lethargy; their cellular body is shrunken, and there is retraction of the prolongations and fusion of the chromatic substances. According to the author's theory, with retraction of the protoplasmic prolongations there comes absence of nerve-protoplasmic contact and contact between the individual neurons; conduction of impulses to or from the cells is prevented, and nerve waves are impossible, the results being a temporary suspension of the vital functions.—*R. Pollicinico.*

Surgery of Hydatid Cysts of the Liver.

JOHNESCO, of Bucharest, summarizes the operations practiced for hydatid cyst as follows: (1) Puncture, which may or may not be followed by parasiticide injections—a

means of treatment which is mentioned merely to be condemned. (2) Marsupialisation; this is an operation of necessity in the case of suppurating cysts, and in those in which calcification of the wall does not allow of resection. (3) Incision followed by evacuation and suture of the cyst; the cyst, after being emptied of its contents and germinal membrane, is sutured, and the pouch left is neither drained nor fixed to the abdominal wall. This is the usual procedure followed by JOHNESCO. (4) Enucleation and extirpation of the cyst, although the ideal plan is seldom applicable.

Operations without Contact of the Fingers.

KERNIG says:—The problem of how to render the hands aseptic is solved by one word, "Don't." He has become convinced that all methods of sterilization are unreliable, and that the only means to insure absolute asepsis is to avoid direct contact of the tissues with the fingers. With the exception of abdominal surgery, he finds that instruments can take the place of the fingers in nearly all operations. The handles must be made longer than at present, and the number of retractors, etc., multiplied. With practice it becomes easy to work without direct digital contact, and to train the assistants in the same technique. If it is necessary to compress a vessel, for example, the assistant should first wrap his finger in sterile gauze.

Indications for Opening the Mastoid Abscess in Purulent Otitis Media.

MACLEWEN (*Transactions International Otological Congress*) believes the mastoid should be opened: (1) In all cases of long-standing purulent otitis media, even though the patient is but little annoyed, because the danger of further complications is great. (2) In such cases as have lesions in the middle ear, which, though they could be removed by way of the external ear, can be removed with greater safety by way of the mastoid. Removal by way of the external ear is very apt to rekindle a smouldering point of infection. This applies particularly to a so-called "aural polyp." (3) For the removal of necrotic bone, this being the only way the germs of infection can be eradicated. (4) Recurrent cases of purulent otitis media should be treated by this operation, and thus the danger of future complications be avoided. (5) Cholesteatoma and tuberculous processes with secondary pyogenic involvement should be treated by opening the mastoid, for only in this way can the diseased tissue be removed. (6) The author likens purulent otitis media to appendicitis, and says an early and complete operation is the best procedure in either case. It is the only procedure in which there is a cure. (7) It may be necessary to open the mastoid to identify the suppurative organisms, in order to determine the character of the disease. (8) Opening of the mastoid should always be done as a preliminary step to any operation upon an intracranial lesion having its origin in purulent otitis media, abscess of the brain, of cerebellum, and sigmoid sinus thrombosis. (9) It is the safest and surest way of eradicating persistent purulent otitis media.

OBSTETRICS AND GYNECOLOGY.

Heart Disease and Pregnancy.

THE dangers of cardiac disorders in pregnancy are always obvious, but there are two possibilities: (1) Pregnancy is apt to re-light an old endocardial inflammation, and the more recent the original attack, the greater the danger. (2) Dangers from pregnancy affect women suffering from cardiac disease in proportion in which old pregnancy follows another. In a case of compensated valvular disease we rarely see failure in this respect in the first four months, but where compensation did not previously exist it is not likely to occur early in the pregnancy. The rational treatment in such cases is abortion, for a viable child is hardly to be expected, and it would be folly to add to the overburdened heart the strain of useless pregnancy. In the second class, the author includes the cases where lost compensation occurs in the last half of pregnancy, and from great increase of the work of the heart the strain increases from day to day. Sometimes the failure is due to re-lighting of an old endocardial inflammation. When left to nature the chances are that the woman will not go to term. The question arises whether we should try to carry the mother past the seventh month, and if by the use of cardiac tonics the circulation can be restored, we may be justified in waiting. Gillespie does not feel certain of the advisability of this course, but is not certain of the contrary. As a heart tonic, theoretically the therapeutic action of strophanthus is preferable to digitalis, and is safer. Strychnia also produces good effects. The bowels should be looked after and absolute quiet insured, as exercise does not help the matter. If the condition of the heart does not improve and hyperæmia of the liver manifests itself and digestion is disturbed, and especially if the urine shows albumin with casts, medical treatment is useless. Whenever labor occurs, whether early or late, it must be conducted so as to incur as little strain as possible, and he does not think that anaesthetics are contraindicated by cardiac disease. The usual methods will not suffice in induced labor. Rapid manual dilatation and extraction by the feet is the safest, as being the least exhaustive, and also offers the best possibilities of delivering a living child. The hydrostatic bags are applicable in many cases. A case is reported illustrating the points made in the paper. The author concludes that it is not safe to wait for development of the heart symptoms. They should be anticipated, and in every case where the heart is in ill-health, forceps delivery is advisable as soon as compatible with other conditions.—*Jour. Amer. Med. Assoc.*

Two Advantages Ovary possesses over Curettage.

THE advantages FRANK A. STAHL, M.D., mentions are:—

1. The superior advantage of the finger in recognising foreign bodies.
2. The superior shelling out intact of the secundines. Advantage of the finger, instead of the usual morselling by the curette and forceps.

The following additional points were referred to by others during the discussion:—

3. Danger of perforation with the curette.

4. The finger can determine the exact location of the secundines, and we naturally curette the part to which the secundines are attached; whereas, when we use the curette, we are apt to curette the whole mucosa, which in septic cases is dangerous, and in non-septic cases uncalled for.

Of the seven gentlemen who discussed the paper, only one favoured the curette.

Suprapubic vs. Vaginal Section.

BENJAMIN (*Journal of the American Medical Association*) insists on the greater advantage of performing abdominal section over the infrapubic operation, and quotes a number of authorities in support of his view. The chief advantage is the ability to make a more thorough operation, to discover complicating conditions, and to meet the complications. He offers in conclusion the following as suggestions in regard to the matter: (1) The abdominal operator has the advantage of sight, touch and access to the disease. (2) He is able to explore the whole abdomen for visceral disease. (3) He can do careful, complete and conservative work. (4) There are few diseases of the female pelvis, except certain abscesses, operable from below that are not best treated from above. (5) Surgery of the female pelvis should be the practicing of good surgical sense, and not fads.

Sexual Feeling and Removal of Ovaries.

IN the case reported by SMITH there were misplaced and inflamed ovaries causing the patient misery, with complete absence of sexual feeling. The ovaries were removed, as the patient had been under medical treatment for years without benefit. The result was restoration to health and complete restoration of sexual feeling, which had heretofore been absolutely absent. The cure seems to be permanent, and he agrees with LAWSON TAIT that in cases of useless and diseased ovaries the removal of the diseased structure restores the normal conditions, and does not unsex the woman.—*Jour. Amer. Med. Assoc.*

Organotherapy in Gynecological Therapeutics.

JACK (*International Journal of Surgery*) draws the following conclusions from his experiments and the study of the literature: Thyroid extracts is one of our most reliable vasoconstrictors, and as far as its gynecological application is concerned, should be limited to hæmorrhages, and those especially in which the epithelial elements of the endometrium are concerned. Mammary extract controls the hæmorrhages from fibromas, reduces the size of the tumors, and in some cases causes their disappearance, and should be preferred to the thyroid extract, which does the same thing in treating fibromas. Parotid extract is the best remedy yet brought out in the treatment of dysmenorrhœa, relieving, as it does, the aches and pains of ovaritis and improving nutrition. Pelvic exudates soften and are often absorbed. Menstruation becomes regular and less in amount when excessive and shorter in duration. The headaches and nervousness so often accompanying these cases are as a rule cured, health and spirits revive, and, indeed, its action here can be denominated nothing less than specific. Ovarian extract is indicated in all cases of menopausal nervous symptoms, or when for any reason it is desirable to increase the flow from the uterus. It is now known almost beyond doubt that the ovary has, besides its function of ovulation, another almost as important, that of internal secretion, and that, like the thyroid, it secretes an active oxidizing agent—spermin—that aids in the metabolism of the blood. Marked decrease in the elimination of phosphates has been observed after ovariectomy.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Bacteriætal Power and the Alkalinity of the Blood in Leucocytosis from Intoxication by Mineral Poisons.

A. BENTIVEGNA and F. CARINI, from the results of experimentation, conclude that the presence of leucocytes in cases of mineral poisoning has the same biological significance as that attributed to it in bacterial intoxications and infections, and that the mechanism of defence of the organism acts against mineral toxic substances with the same energies that up to the present time have been considered a special manifestation in the case of bacteria and microbic toxins.—*Lo Sperimentale*.

Abdominal Relaxation a Probable Factor in the Pathogenesis of Gall-Stones.

JESSE S. MEYER concludes that: (1) Visceral ptosis, consequent upon abdominal relaxation and other causes, results in stagnation of the bile through interference with its normal expulsion. (2) The inactivity of the gall-bladder and stagnation of the bile predispose the mucous membrane to infection. (3) This infection may be either hæmatogenic through the portal system, etc., or an ascending infection from the duodenum. (4) This results in a catarrhal inflammation of the mucous membrane, an albuminous exudate, and the exfoliation of epithelial cells. (According to NAUMY, the addition of albumin to the bile produces a copious precipitation of the stone-forming elements.) (5) This precipitate, with clumped bacteria and degenerated cell masses as nuclei, forms biliary calculi.—*St. Louis Medical Review*.

Production of Jaundice.

THE author's conclusions regarding the production of jaundice are: (1) The basis of jaundice is an increased function of normal liver-cells, which, excited by different stimuli, produce more bile or bile-pigment. (2) Only a normal liver-cell which can take up and elaborate an excess of nutriment, and thus can produce an increased quantity of bile, can eliminate this excess of bile into the intercellular bile-passages, whence part of the bile passes into the blood; in part directly through the walls of the blood-capillaries. (3) The mechanic factor has only an indirect influence, in that it disturbs the intravenous circulation in the blood-capillaries. (4) The bile reaches the general circulation through the blood-capillaries of the hepatic veins, and only to a slight extent through the lymphatics of the larger bile-channels. (5) All forms of icterus can be explained in the way designated, viz. on an increased functional activity of the liver-cells, which means an over-production of bile or bile-pigment.—*Phil. Med. Jour.*

Bacteriology of the Stomach.

KELLOGG's article reports the findings of bacteriologic examinations of the stomach fluid in various conditions, and his conclusions are summarized as follows: (1) A healthy stomach does not require the aid of germs in the digestion of foods. (2) Sterile food is digested in the healthy stomach without the development of bacteria or other micro-organisms. (3) Neither free hydrochloric acid nor combined chlorin, even when present in excess, is a certain means of sterilizing the gastric contents. (4) The gastric contents may be found sterile after a sterile test meal in bases in which free hydrochloric acid is entirely absent and the proportion of combined chlorin small. (5) Fruits, especially fresh fruits, and fruit juices, are capable of completely sterilizing the stomach when used in sufficient quantity.—*Jour. Amer. Med. Assoc.*

Localization of Leprosy Bacilli in Various Organs.

M. JEANSELINE, in concluding his elaborate paper, says that the bacteriologic diagnosis of every case of leprosy should always be made in the interest of the community as well as of the patient. The nasal mucous may contain the bacilli in the early stages of the tubercular or maculo-anæsthetic forms of the disease. The saliva, the tears or other secretions may show them. The semen, the vaginal secretion, the faeces even, may be virulent evokers of the disease, but the urine is free from leprosy bacilli. Prophylaxis then consists in rigid disinfection of the nose and skin of leprosy persons, and the perfect occlusion of all ulcerations. All objects of common usage, such as the clothing, should also be rigorously cleansed.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Mental Sanitation.

SMITH (*The Canadian Journal of Medicine and Surgery*) calls attention to the marked influence which heredity has in producing insanity, and charges that much of the so-called literature of the present day conduces to an unsettled mental state. He concludes as follows: (1) The public should be enlightened with regard to the nature of insanity in order that they may properly estimate the influence of heredity as the most potent factor in the causation of disease. (2) As a preventive measure the public should be taught that as the development of the morbid disposition is most insidious and is seldom recognized until late, the consideration of the family and personal history of the individual should demand and receive early and careful attention. (3) There must be full recognition of the invariability of individuals for bearing burdens and enduring strains. (4) Many cases of insanity are justly chargeable to the imposition of burdens beyond the capability of the individual. (5) The prevention of insanity is not promoted by merely studying the phenomena of the disease. (6) Public sentiment must be enlightened before any restrictive measures can be beneficially enforced. (7) If the conditions under which many cases of insanity originate were properly understood, many attacks of the disease might be avoided. (8) The study of child character and the careful consideration of the variability in the development of mental phenomena during the period of growth in the child are all important. (9) The steps necessary to secure the adoption of these and all other precautionary measures must first be taken by the family physician, who in the future must be prepared to advise, caution and restrain in exercising his influence in the prevention of mental disease. (10) The burden must be adjusted to the capacity of the individual in order that it can always be carried with safety when this is possible; and when it is not possible, that the line of descent of every such defection shall terminate with the individual himself.

Uses for Lemons.

No family should be without lemons. Their uses are almost too many for enumeration.

The juice of a lemon, taken in hot water on waking in the morning, is an excellent liver corrective, and for stout women is better than any anti-fat medicine ever invented.

Glycerine and lemon-juice, half and half, on a bit of absorbent cotton, is the best thing in the world wherewith to moisten the lips and tongue of a fever-parched patient.

A dash of lemon juice in plain water is an excellent tooth-wash. It not only removes tartar, but sweetens the breath.

A teaspoonful of the juice in a small cup of black coffee will almost certainly relieve a bilious headache.

The finest of manure acids is made by putting a teaspoonful of lemon-juice in a cupful of warm water. This removes most stains from the fingers and nails, and loosens the cuticle more satisfactorily than can be done by the use of a sharp instrument.

Lemon-juice and salt will remove rust stains from linen without injury to the fabric. Wet the stains with the mixture and put the article in the sun. Two or three applications may be necessary if the stain is of long standing, but the remedy never fails.

Lemon-juice (outward application) will allay the irritation caused by the bites of gnats or flies.

Lemon peel (and also orange) should be all saved and dried. They are a capital substitute for kindling wood. A handful will revive a dying fire.

Two or three slices of lemon in a cup of strong tea will cure a nervous headache.

Lemon-juice removes stains from the hands.

The natives of India clean brass trays, Indian and Moorish brass work, pipe stands, and all such things with a cut lemon. Wipe afterwards with a leather.

Fill a wide-mouthed pint bottle half full of brandy, and whenever you have bits of waste lemon rind, pare the yellow part thin, and drop it into the bottle. A few drops make an excellent flavouring for tarts, custards, blancmanges, &c.

At what Age should Girls marry?

THIS question is discussed by various lady writers in *The Young Woman*. JOHN STRANGE WINTER believes in early marriages—provided, of course, that the girl marries the right man. "I think," he writes, "that everything tells for an early marriage, and nothing can be reasonably urged against it. We are accustomed to hear a good deal of the enjoyment of youth. We are told by some people that it is a pity to curtail girlhood. Well, now, what is there about girlhood that it is a pity to curtail it? It is a period of probation; it is a time when a girl is on her promotion; it is a half life at best. I think that when a girl marries young—that is, from eighteen to twenty-five—according to her temperament and her opportunities, and always supposing that she marries a husband whose age is really contemporary with her own, she has a better chance of bringing healthy children into the world. If she waits eight or ten years, she will marry a man eight or ten years older than the husband she would have chosen in her youth. She gains nothing by that; on the contrary she gives up, it is true, a few pleasures—or say, she may have to give up a few pleasures—for what does the English girl enjoy that the young married woman is shut out from? She takes certain responsibilities upon herself. After all, they are natural responsibilities, and will come no easier to her in ten years' time, quite otherwise. Then there is another argument in favour of early marriages; it is that mother and children will be young together.

Mrs. BOYD CARPENTER (the wife of the Bishop of Ripon) thinks it cannot be wise or right for a girl to marry until a certain maturity of character has been reached. "For what does marriage mean?" she continues: "The gaining of freedom, the direction of a household, the spending of an income, the maintenance of a position, the life of enjoyment, the change from a position of comparative insignificance to one of authority. Ay, and more than that. It is the fruition of life, and not until the plant has reached maturity should there be blossom and fruit. The seed time in the home, the growth and development at school and at college and in society, these are the preparation. Then comes the blossom, when the receptive period becomes the productive; when from being a learner the girl becomes an actor; when she takes up life for herself and realises her own responsibility of existence. This is the period before which she should not marry, but after which, if she wishes, she may do so safely and happily. For what is marriage? The linking of two lives for good or for ill, the conscious and continuous exercise of influence upwards or downwards; and, if the heritage of children is theirs, the instilling of principles and the formation of characters which will bear fruit in the ages to follow. To the girl who takes a high view of life and its possibilities, who is not satisfied with a butterfly existence of empty pleasure, marriage will be too serious a step to be undertaken lightly or unadvisedly, and therefore she will not be unhappy if she leaves her teens behind before she steps into the dignity of a married woman."

Signs of Death.

SYNCOPE, coma, concussion, hysterical spasm, catalepsy and exhaustion may simulate death, although in these conditions the body warmth is retained and the heart and lung action continue, but feebly perhaps. The signs on which a medical man should rely as furnishing the best evidence of the reality of death, prior to the commencement of putrefactive changes, are:—

1. The absence of circulation and respiration.
2. The gradual cooling of the body, the extremities cooling first and the trunk last.
3. Gradual supervention of rigor mortis.
4. The production of *post-mortem* stains or ecchymoses.

The careful observation of these four signs by a medical man will enable him to distinguish a living from a dead body.—*Brit. Med. Jour.*

THERAPEUTICS & PHARMACOLOGY.

Experimental Medicinal Cure of Gall-Stone.

N. D. TITOFF says a Test on nine large dogs are described in which the gall-bladder was incised and one or two human cholesterol calculi inserted. The wound was then closed and efforts made to dissolve the calculi by medicinal measures. They were successful beyond anticipation. If confirmed by future experience, the fact is established that gall-stones can be artificially dissolved by way of the intestinal and biliary passages. Three Pravaz syringefuls of a mixture of one part ether to two parts benzol were injected per rectum. The injections were well retained and no local nor general unfavourable symptoms were observed. Traces of cholesterol crystals could be found in the bile aspirated even as soon as a half hour afterward. The stone had lost 16.6 mg. in weight when the animal died, two weeks after these injections had been inaugurated, in one case. These experiments demonstrate that the medicinal treatment of gall-stones has a solid foundation, and that the only problem is to administer the benzol or other dissolvent in the least irritating form, possibly as terpin hydrate with euobinin or turpentine and quinine. In some of the experiments no medicine was used, but the stone diminished .013 to .01545 mg. The chloroform given during the operation may have been responsible in one case, but in the other no chloroform was used. This result seems to indicate that the natural bile of dogs is able to dissolve cholesterol calculi in certain cases at least.—*Jour. Amer. Med. Assoc.*

Treatment of Typhoid Fever by Enemata of Olive Oil.

OWEN F. PAGET, M.B., B.C. (*Lancet*) has previously advocated the following treatment:—It consists in slowly administering every 12 or 14 hours an enema of about a pint of olive oil. The oil should, if possible, be retained in the bowels 12 to 14 hours. If it is not returned after this time, it may be brought away with an ordinary soap-and-water injection, a fresh dose of olive oil being administered two or three hours later. After a week or ten days the daily injections are discontinued, and they are given only when the temperature rises or the bowels are confined. With diarrhoea it is imperative to give olive oil; it is more efficient than opium or any other drug in bringing about natural evacuations. Occasional small doses of calomel from $\frac{1}{10}$ gr. to $\frac{1}{2}$ gr. are useful if the oil is not sufficiently stimulating to make the bowels act. With oil injections bismuth preparations are quite unnecessary.

Patients treated in the above manner, according to the writer, never die. He believes that typhoid fever *per se* is harmless, that it is the accompanying sepsæmia or ptomaine poisoning which produces the ill-effects. Under this treatment there are no sequelæ, tympanites, perforation, or heart failure. No cold baths are necessary.

Chloral and Hæmorrhage.

A. MODEL ascribes a series of very severe hæmorrhages from the stomach, lungs, intestine, and nose, which he himself suffered from, to the habitual use of chloral as a hypnotic. Before the use of the drug was begun, in spite of a hæmophilic family history, no bleedings ever occurred; after it had been taken for some time, the hæmorrhages were frequent, but again were conspicuous by their absence during a period of four years of chloral abstinence. Finally, at the end of this time, moderate indulgence in the drug was followed by a recurrence of the bleeding.

On the Use and Abuse of Lavage.

JOHN HERR MUSSER believes it unwise to allow patients themselves to do lavage; soon a habit develops in them, which is apt to prove injurious. Every ache or sense of distress, every eructation or heartburn, invites the use of the tube. The writer uses it in cases of a tonic dilatation, when the retention is extreme; in cases of organic pyloric obstruction; in gastric neurasthenia and certain cases of hysteria, and in some cases of chronic gastritis with sub-acidity. To ascertain the nature of any gastric lesion or disorder, he makes a practice of analysing the stomach contents of all patients whose complaints are gastric, and all whose general health suggests imperfect nutrition from defective gastro-intestinal processes. He also employs physical means for determining the size of the stomach—percussion, inflation, etc.—*The Therapeutic Gazette*.

Palatable Effervescent Quinine.

R Quinina sulphatis	...	...	3i.
Acidi citrici	...	...	3iiss.
Syrupi aurantii corticis	...	...	℥. xv.
Syrupi simplicis	...	...	℥. xv.
Aquæ destil. q. s.	...	ad.	3v.

M. Sig. Add ten or twenty drops to two ounces of water containing five or six grains of sodium bicarbonate.

Ten drops of the mixture contains about one grain of quinine.—*Therapist*.

To Prevent Abortion.

R Ext. hydrastis fluidi.			
Ext. hamamelidis flu.			
Ext. virburni prunifolii flu. ...	aa	3i.	
Tinct opii	...	...	3iiss.

M. Sig. One and a half teaspoonful in half a glass of water three times a day.—Boss: *Med. Sum*.

For Treatment of Hiccough.

R Sodii bromidi			
Potassii bromidi,	...	...	aa 3i.
Ammonii bromidi	...	...	... 3ss.
Syrupi simplicis, q.s.	...	...	ad. 3v.

M. Sig. One tablespoonful every hour until relieved.

H. KLEIN, of Chicago, states that he was successful in checking the hiccough in a patient, which had continued for four days, by the administration of two doses of the above preparation.

*Correspondence.*THE NEW PRESIDENCY GENERAL HOSPITAL,
CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following from *Indian Engineering* will interest your readers:—

"It is seldom that one can write in unqualified praise on the construction and sanitary arrangements of even a new building. The new European General Hospital has evidently had the greatest care and the best skill bestowed upon it, and the result is a building which is not only structurally adapted in the highest degree for the purposes in view, but is in its sanitary arrangements about as perfect as it is possible to be. It consists of a central block, chiefly taken up by administrative offices and private wards, with large rectangular ward blocks on each side. These latter contain six main wards, two on each floor, and each has accommodation for 24 patients. At each end of the building are the lavatories. The whole structure is raised eight feet above the ground on a series of pillars allowing a free air space below the ground floor. The hospital faces north and south, because the prevailing winds are from the south. With the exception of the central end, a wide verandah runs round each of the main wards. The roof is flat, and affords a most excellent promenade extending over the whole building. The wards are arranged so that 116 superficial square feet and 1,914 cubic feet capacity will be allowed for each patient.

This is a liberal allowance, taking into consideration the free perfusion of air provided for—in fact, the atmosphere of the ward can hardly fall short of the purity of the external air. Every thought has been bestowed to prevent the lodgment of dust and dirt. The floors of the wards and some of the other rooms are paved with marble. The remaining floors, including the verandahs, are finished with Indian patent stone, which has proved such a boon in Calcutta. The work in this case has been carried out with extra special care, and the results are very gratifying. The dadoes of the wards and other rooms are faced with white glazed tiles to a height of five feet. There is a channel drain all round each ward close to the wall and opening out on to the verandah. The windows are carried close up to the ceiling. The lavatories and ward closets for each ward occupy the small isolated wings at the east and west extremities of the building. The medical officer's room and the nurse's room overlook each ward. In addition to the verandah there is a day room for the patients of each ward, to which are also attached a linen room and scullery with an isolated sink room for washing up. There are also two small separation wards in connection with each main ward. The central block contains six private wards on each storey. These have their own lavatory blocks, also a day room on each floor, with pantry and store room and a south verandah. These wards contain one and two beds, and are intended for the lower grade paying patients, who will not be prepared to indulge in the more superior accommodation and board contemplated in the future Paying Patients' Block. The two operating rooms, one above the other, are beautifully situated over the central porch. They face north, and are also open to the east and west, and each has an anæsthetic room and a splint and bandage room close by. So much for the general structural arrangements.

We must now consider the sanitary fittings. The sewage of the hospital will drain into the Circular Road. There is sufficient fall and an intercepting tank is provided near the main sewer. Within the grounds there is an inspection chamber at every 75 feet. The soil pipes

are glass-lined and well ventilated, and wherever a band has been necessary a screw-down inspection flap has been provided. Each closet drains separately into the soil pipe of its block. An ingenious cowl, insuring an up-draught of air, is fitted to the top of each ventilating shaft. The ward W. C.s are fitted with FINCH'S "the Asylum" pan—a wash-down form of closet, fulfilling the most modern requirements. There are also SHANK'S patent slop sink and bed-pan washer—the latter an ingenious method of cleaning these articles without risk of soiling the hands. There are some curious cages placed on the widow sill outside the lavatories for putting the bed-pans in after washing, but these strike us as being quite unnecessary. Each W. C. has its own little cistern, and in case of repairs provision has been made for cutting off each individual supply. The plumber's work looks everywhere to be particularly good, and has been done by English labour. The water-supply is entirely of filtered water, and comes from the main into an underground reservoir. This will contain about 10,000 gallons, or roughly two days' supply. From this the water is pumped by electrical power to the eight large cisterns at the top of the building. From two of these cisterns water is taken solely for drinking purposes, so that there is no danger of the drinking supply becoming contaminated from the supply which is distributed to the lavatories. Each tank moreover can be shut off whenever necessary. The whole building has therefore two sets of pipes for its cold-water supply. In addition, there is the hot water system of pipes which branch off from the boiler situated in the basement. This is arranged with a double set of pipes, allowing for a specially free circulation of the heated water. A great feature of all the water-supply pipes in the building consists in their being blocked off the wall. This advantage is applied also to the large rain-water pipes run down the outer walls on their inside, facing the verandahs, and the washings of the verandah floors enter these pipes with branch connections. We think this arrangement is a distinct improvement, and there is no objection to it on sanitary principles.

The sanitary construction and fittings of the operation rooms are on the latest models. The floors are of marble and slope to an outlet channel drain at one of the outer corners, so that the floor washing is carried outside. The walls are tiled five feet up, and every angle or ledge is bevelled off for ready cleaning and for preventing the lodgment of dust. There is fitted a MORRISON INGRAM'S Sink with treadle action for water-waste and for hot and cold water supply, and a SHANK'S Projector wash basin with treadle action supply and knee action for water-waste, together with spray and douche handle. There are the requirements of modern ingenuity for saving labour, and in the carrying out of this department of work it is impossible to award too great praise to that well-known firm, Messrs. J. B. NORTON and Sons, for the high standard of plumbing they have put into this building. Several gentlemen well-versed in plumbing matters, and who have taken stock recently of corresponding work done in England, acknowledge in Messrs. J. B. NORTON and Sons' handiwork at the hospital something that will compare most favourably with anything of the kind done elsewhere. The firm in question, the Architect and Engineers and the Medical authorities have reason to be specially proud and satisfied that the sanitary needs have been so carefully thought out and executed.

The lighting, which will be by electricity, is in the hands of Messrs. BALMER, LAWRIE and Co., and electricity will also be the motive power for the punkahs, pumps, etc. In carrying out the lighting, this firm has succeeded in executing work of a high class, and the Government Electrical Engineer's tests and report are exceedingly satisfactory. The operating room lamps are a special

feature, being swivelled and pointed so as to be adjustable to any height or angle. This firm is also supplying the electric pumps, of which one is already fixed.

The nurses' quarters, consisting of a three-storeyed building near the Canning Home, is also approaching completion. It will be required for the extra staff of nurses to be employed when the new hospital is opened. The main kitchen, too, is well in hand, and is expected to be ready for use in another month or two. It contains refrigerating arrangements, steam-cooking appliances, a grill, and a bakery, besides the usual cooking ranges, etc. Wards for infectious diseases are, we understand, to be taken in hand ere long. These are necessary adjuncts, and the removal of the present building used for isolation purposes, which is in too close proximity to the new hospital, will be loudly called for when the latter is occupied.

Taken as a whole, it may without question be said that the design of the new hospital building is excellent. It is true the architecture is plain, but it is manifest that everything has been sacrificed to ensure utility and efficiency, and the architect is to be congratulated on thus realizing the public ideal. The result must be a source of satisfaction to all concerned, because it embodies the best principles of the builder's art, and fulfils the latest commands of modern sanitary science. We are unable to obtain an exact date as to when it will be ready for use, but apparently its occupation will not be delayed beyond a few weeks from now."

Yours, &c.,

P. G. H.

A TRIP THROUGH THE LABORATORIES OF FREDERICK STEARNS AND CO.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—A visit to any of the larger pharmaceutical laboratories is generally of interest to a retail druggist, but when it is one that is entirely new throughout and most modernly equipped in every way, as is that of Frederick Stearns & Co., the visit is doubly enjoyable. This firm's new home is situated in one of Detroit's most beautiful thoroughfares—Jefferson avenue, near the bridge leading to Belle Isle. The laboratory, which covers an entire city square, is built in the form of a hollow rectangle, with Jefferson avenue on the south, Bellevue avenue on the east, and the Michigan Central Belt Line on the west.

Around the open court (which affords perfect light) is a gallery on each floor. These galleries are completely enclosed in glass, and are used as a means of connecting the different buildings and departments.

At first glance this imposing structure seems to be one continuous building, but in reality there are seven separate buildings, six of which are devoted to the laboratories, and the remaining building (that fronting on Jefferson avenue) is for office purposes only. This office building is of the Elizabethan or English renaissance style, and is the handsomest of its kind in the city. Its entrance is through a beautiful stone arch, the floor of which is inlaid tiling. Entering the vestibule and passing into the main hall, one goes directly into a large reception room, which is finished in antique oak—floors, pillars and ceiling—right off from which are located three cozy little consulting rooms. On the first floor are the directors' room, the office of the Vice-President and Treasurer, Mr. F. C. McLaughlin, and in regular rotation are the offices of Mr. W. I. L. Stearns, Assistant Treasurer, Mr. W. D. Stearns, Superintendent, and Mr. W. G. Rankin, Assistant Superintendent. At the other end of the hall are located the book-keeper's office and the office

of Mr. N. A. Tabor, manager of collections and credits. On the second floor the President, Mr. F. K. Stearns, has a suite of three rooms at the south-east corner, adjoining which are the two offices of Mr. S. C. Stearns, Assistant Secretary, who is also in charge of the scientific department. Next in order come the three offices of the Secretary, Mr. Thos. Bennett, who has charge of the foreign business, then following come the offices of Mr. J. W. T. Knox, advertising manager and editor of *The New Idea*, and Dr. Yarbrough. At the end of the hall is a suite of rooms in charge of Mr. D. M. Gray, manager of the department of sales and travelling salesmen. Adjoining Mr. Gray's offices is a large room called the "travellers' room," which is at the service of the many travelling men of the house whenever they happen to be in off the road: adjoining this is the sample room. There is also a library and reading-room on this floor.

From the office building the visitor is conducted to the laboratories, which were built in the form of a rectangle, so that the material handled which enters at one gate may, after going round the whole rectangle, come out a finished product at the same gate in which it entered as crude material. It goes first into the stock building devoted wholly to the storing of drugs, chemicals and glass. The first floor (which is really a high cellar) of this stock building is devoted to the manufacture of vinous preparations, such as wine of cod liver oil, beef, iron and wine, and similar compounds. This room is concreted and is cool during the hottest summer months.

The next building contains on the first floor or cellar the plant for power, heating and lighting. Here are three new steel boilers of 100 horse-power each, an engine of 150 horse-power, and an immense dynamo. Above this is the mill room, where the crude drugs are ground or powdered by means of various appliances. Adjoining the mill room is a room devoted to the manufacture of "Kasagra," and next comes the still room containing vacuum pans, pumps, etc. The largest pan used for water evaporation has a capacity of evaporating 70 gallons an hour. In the still room in addition to the vacuum pans are found "all sorts and conditions of" stills, from the small twenty-gallon copper ether still for the making of oilo-resins up to the large steel still for recovering alcohol, which holds six hundred gallons. Here are also located several large open evaporating pans of different sizes. Passing along in regular order, one comes to the percolating room, in which are located fluid extract percolators of all sorts and sizes, from the huge wooden tapering tanks, which hold five hundred gallons for exhausting mandrake for podophyllin, down to the little glass two-gallon percolators for special work. Leaving the percolating room, one passes into the general manufacturing room, in which the special formula work and simple domestic remedies are made.

The next department in order is the packing and shipping room, but as that is nearly the last place where a drug or preparation is taken to, it is generally left until later on. Passing over then to second story west building, the guest next visits the analytical department, presided over by Prof. Sherrard. It is here that all crude drugs as well as finished preparations are assayed. Next in order comes the department of the manufacturing and putting up of cachets.

The next department in order is the label stock-room. This is a large-sized room given up entirely to the keeping of the thousands upon the thousands of assortments of the different labels made and used by this concern. Then comes the press room and printing department. Here is an array of printing machinery, the like of which does not exist in many cities even in the regular printing business, and no pharmaceutical establishment here or abroad has such great facilities for fine printing. A bindery and a paper stock room complete this department.

Moving along the gallery one comes next to the pharmaceutical finishing department, the assembly room, where are finished the private formulas, etc.; the paper box factory, which covers an area of 300 feet long and 40 feet wide and employs 70 people; the elixir or wet department, a room 100 by 40 feet; the pill finishing room, a department for making filled capsules, capseids, tablet room and drying rooms. On the fourth floor the powdered goods are put up.

In the next building is the perfume department. The perfumes are made, bottled and stored in the basement. On the next floor are the filling labelling and boxing rooms. Across the court are the packing and shipping rooms, where a most perfect system of handling orders is installed.

In this article nothing has been written about the buildings themselves, the people who inhabit them, or of the company whose business is done within them. Nor will space permit a description of the biologic laboratory, which occupies a separate building. A description of the buildings was printed in the *Era* for March 1. Frederick Stearns & Co. claim that in these new quarters they have "the most modernly constructed and perfectly equipped institution of its kind in the world."

Yours, &c.,
R. MARTIN.

BOOK REVIEW.

MANUAL OF THERAPEUTICS.

BY PARKE DAVIS & Co.

This well-bound and very neatly printed volume of 421 pages has been sent us for review. As an aid to the busy practitioner who uses the preparations of this worthy firm of pharmaceutical chemists, it is perfect; but to students and practitioners who practise according to the British Pharmacopoeia, it is practically of little value.

Government Medical Gazettes.

MADRAS.

Furlough on med. certificate, from the 9th Sept. 1899 to the 21st Dec. 1900, granted to Lieut.-Col. W. B. Browning, I.M.S., is commuted into furlough without med. certificate.

In exercise of the power conferred by Section 11 of the Madras Local Boards Act, 1884, His Excellency the Governor in Council is pleased to appt. the undermentioned gentlemen to be members of the following Dist. Boards:—

Dr. B. Sundaram, Chingleput.

Lieut.-Col. W. A. Lee, I.M.S., Trichinopoly.

Capt. W. O. Vickers, M.B. & C.M., I.M.S., Coimbatore.

N.-W. P. & OUDH.

Civil Asst. Surgn. Nil Ratan Banerji, attached to the Sadul Disp., Sultanpur, privilege leave for one month, from the 17th Feb. 1901.

Temp. Civil Asst. Surgn. Kashi Nath, on reserve duty at Benares, to plague duty at that station, from 1st Feb. 1901.

Notification No. 1275, dated 11th Feb. 1901, appointing Hosp. Asst. Narsin Prasad to the ch. of Husainabad Disp., Lucknow, is hereby cancelled.

Civil Asst. Surgn. Chanan Singh, on being relieved of plague duty in connection with Magh Mela, Allahabad, to reserve duty at Allahabad.

Civil Asst. Surgn. Ghulam Mustafa, from the ch. of Huseinabad Dispy., Lucknow, to Sadr Dispy., Musaffarnagar.
Civil Asst. Surgn. Behari Krishna Basu, attached to Sadr Dispy., Jaunpur, privilege leave from 29th Dec. 1900 to 16th Jan. 1901.

Hosp. Asst. Narain Prasad, on reserve duty, Lucknow, to the ch. of Huseinabad Dispy., Lucknow, as a tempy. measure.

Dr. H. A. Macleod, in civil med. ch. of the Ballia dist., is placed on special duty in that dist. in connection with plague.

Major B. J. Innes, B.A.M.C., Roorkee, held civil med. ch. of that stn. in addn. to his military duties from the 24th Oct. to the 24th Nov. 1900.

PUNJAB.

The following tempy. transfers were made in the Ferozepore Dist. in consequence of the grant of leave to Asst. Surgn. Kirpa Ram, Kora Fazilka Dispy. :—

Hosp. Asst. Nur-ud-din is transferred from the Abohar to the Fazilka Dispy., from the 1st Jan. 1901.

Hosp. Asst. Muhammad Usman Ghani is transferred from the Police Hosp. to the Fazilka Dispy., from the 4th Jan. 1901.

Hosp. Asst. Nur-ud-din reverted to the Abohar Dispy. on the 5th Jan. 1901.

Hosp. Asst. Imam-ud-din, Jail Hosp., Ferozepore, assumed ch. of the Police Hosp., in addn. to his duties, on the 3rd Jan. 1901.

With the sanction of Government, the following Licentiates of Medicine and Surgery of the Lahore Medical College were employed as tempy. Asst. Surgns. and posted to the stns. and from the dates noted against their names :—

Lala Jagat Narain—Sialkot, gen. duty, 26th Dec. 1900.

Lala Baghunath Sahai—Civil Hosp., Umballa, 23rd Jan. 1901.

Lala Shiv Das—Fazilka Dispy., Ferozepore Dist., 29th Jan. 1901.

Pandit Rup Narain—Delhi, gen. duty, 1st Feb. 1901.

On transfer from Amritsar, Hosp. Asst. Baber Khan was apptd. to the ch. of the Chenab Canal Dispy., Chenawan, Gujranwala Dist., on 21st Jan. 1901, relieving Hosp. Asst. Gurmukh Singh.

On transfer from Hissar, Hosp. Asst. Metab-ud-din was placed on gen. duty at Gurgaon from the 18th Jan. 1901.

Hosp. Asst. Hari Singh, Hamirpur Dispy., Kangra Dist., has obtained one month's privilege leave, and was relieved of his duties on the 19th Jan. 1901 by Hosp. Asst. Kahan Singh, transferred from Balaampur in the same dist.

On transfer from Mianwali, Bannu Dist., Hosp. Asst. Ghulam Basul was attached to the Northern Waziristan Militia Regiment, Idak, Tochi, from the 31st Dec. 1900, relieving Hosp. Asst. Chaman Lal, who was placed on gen. duty at Bannu from the 2nd Jan. 1901.

Hosp. Asst. Waryam Singh resumed ch. of the Sangla Dispy., Gujranwala Dist., on the 1st Feb. 1901, relieving Hosp. Asst. Arjan Das, who was placed on gen. duty at Gujranwala on the 3rd Feb. 1901.

Hosp. Asst. Ghulam Basul resumed ch. of the Tohana Dispy., Hissar Dist., on the 1st Feb. 1901, relieving Hosp. Asst. Brij Lal.

Hosp. Asst. Ram Chand resumed ch. of the Rawalpindi City Branch Dispy. on the 1st Feb. 1901, relieving Hosp. Asst. Jagan Nath, apptd. to do gen. duty at Rawalpindi.

Hosp. Asst. Khuda Baksh, doing gen. duty at Delhi, to the Jullunder Dist. for plague duty. He reported himself to Chief Plague Med. Offr. at Bangat on the 1st Feb. 1901.

Hosp. Asst. Bansil Lal, doing gen. duty at Jullunder, to the Gurdaspur and Sialkot Dist. for plague duty. He reported himself to the Plague Med. Offr. of those dists. on the 31st Jan. 1901.

Lieut.-Col. Z. A. Ahmed, I. M. S., assumed ch. of the Civil Med. duties of Wana on the 19th Jan. 1901, relieving Lieut. F. V. O. Beit, I. M. S.

Asst. Surgn. Khazan Chand made over ch. of the duties of 'Suptd. of the Sialkot Jail' to Capt. P. St. C. More, I. M. S., on the 12th Jan. 1901.

BURMA.

Capt. C. G. Roberts, I.S.M.D., on proceeding on six months' leave on med. certificate, made over, and Mily. Asst. Surgn. P. McCarthy, on return from leave, assumed ch. of the Civil Surgeoncy of the Tharrawaddy dist. on the 28th Jan. 1901.

Hosp. Asst. Jai Lal, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 6th Feb. 1901, as a supy.

Hosp. Asst. Raj Chunder Kug, on transfer to Maymyo, relinquished ch. at the Gen. Hosp., Rangoon, on the 27th Jan. 1901.

Hosp. Asst. Bishen Lal, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 6th Feb. 1901, as a supy.

Hosp. Asst. Bihari Lal, on return from India, assumed ch. at the Gen. Hosp., Rangoon, on the 27th Dec. 1900.

Hosp. Asst. D. Swami Dass, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 27th Dec. 1900.

Hosp. Asst. Kishori Mohan Majumdar, on transfer from India, assumed ch. at the Gen. Hosp., Rangoon, on the 5th Jan. 1901, as a supy.

Hosp. Asst. Radha Mohan Chakravarty, on transfer from India, assumed ch. at the Gen. Hosp., Rangoon, on the 3rd Jan. 1901, as a supernumerary.

Hosp. Asst. P. Govinda Pillay, on transfer to Rangoon, relinquished ch. of his duties as a supy at the Civil Hosp., Sandoway, on the 29th Nov. 1900, and assumed ch. at the Gen. Hosp., Rangoon, on the 3rd Dec. 1900, as a supy.

Hosp. Asst. P. Govinda Pillay relinquished ch. of supy. duties at the Gen. Hosp., Rangoon, on the 26th Dec. 1900, and assumed ch. of plague inspn. duties, Rangoon.

Hosp. Asst. Kishori Mohan Majumdar, on transfer to Monywa, Lower Chindwin dist., relinquished ch. at the Gen. Hosp., Rangoon, on the 22nd Jan. 1901.

Hosp. Asst. A. Rungasawmy Iyer, on the abolition of the Outpost Hosp., Pale, Lower Chindwin dist., relinquished ch. on the 2nd Jan. 1901, and assumed ch. at the Outpost Hosp., Yinnabin, Lower Chindwin dist., on the 2nd Jan. 1901.

Hosp. Asst. A. Rungasawmy Iyer relinquished ch. at the Outpost Hosp., Yinnabin, Lower Chindwin dist., on the 3rd Jan. 1901 and assumed ch. at the Police Hosp. Monywa, Lower Chindwin dist., on the 4th Jan. 1901.

Hosp. Asst. A. Rungasawmy Iyer assumed ch. of addnl. duties at the Civil Dispy., Yinnabin, Lower Chindwin dist., on the 2nd Jan. 1901.

Hosp. Asst. Hari Chand, on proceeding on six months' leave on med. certificate, relinquished ch. at the Police Hosp., Monywa, Lower Chindwin dist., on the 15th Jan. 1901.

Hosp. Asst. Maung Maung assumed ch. of addnl. duties at the Lock-up, Taunggyi, Southern Shan States, on the 1st Feb. 1901.

Hosp. Asst. K. Govindan, on transfer to Myitkyina, relinquished ch. of his duties with the Mandalay-Kunlon Ry., at Maymyo, on the 25th Jan. 1901.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTHS.

MITTEW.—On the 3rd February, 1901, at Tanglin, the wife of Capt. R. K. Mitter, I.M.S., of a daughter.

ELLIS.—At the Waverly Hotel, Naini Tal, on the 24th February, the wife of Lieutenant-Colonel P. M. Ellis, B.A.M.C., of a son.

MARRIAGE.

DREDGE—RICKETTS.—On the 5th February, at St. Mark's Church, Bangalore, by the Rev. W. Barry, Chaplain, James Allen Dredge, Captain, I.M.S., eldest son of James Dredge, Esq., Melrose, Glastonbury, Somerset, to Lillian Didett, youngest daughter of L. L. Ricketts, Esq., late Inspector-General of Police and Forests, Mysore.

ORIGINAL ARTICLES.

THE TEACHING OF OBSTETRICS.

By J. WHITRIDGE WILLIAMS, M.D.,

*Professor of Obstetrics, Johns Hopkins University,
Baltimore.*

THE ideal method of teaching obstetrics would be to divide one's students into two groups, according as they expect to practice that branch of medicine in their future professional work, or as they study it merely as a part of their general training.

To the former an extended course could be given and many subjects considered in detail which are of but little interest to the average student, and facilities could be afforded for a large amount of practical work. While, on the other hand, an elementary course could be given to the second group, in which only the general outlines of the subject would be taught, together with a minimum amount of hospital work. For it appears to me that it is a great waste of energy for a student, who expects to devote himself strictly to internal medicine or to one of the purely scientific branches, to be obliged to devote practically as much time to the study of obstetrics or surgery, for example, as to the subject in which he is particularly interested.

Unfortunately these ideals, desirable as they may be, cannot be attained until the methods of medical education are entirely revolutionized and a system inaugurated in which the individual student is permitted to elect, to some extent at least, certain branches of medicine to which he desires to pay particular attention. So that at present one must be content to instruct all students in practically the same way, no matter what their individual preferences may be, and limit one's aspirations to making one's course as profitable and practical as possible.

For the past two years I have attempted to differentiate my students to a slight extent by affording increased clinical facilities to those who desire them during the summer months. I do this at the end of the third year by ascertaining which students are particularly interested in obstetrics, and then allow 12 of them, who have stood best in their class, to have the run of the wards for three weeks each. In this way each of the 12 students is enabled to see 20 or 30 women delivered, instead of 8 or 10, as the rest of the class. This plan has proved very satisfactory, as it solves the problem to a slight extent, and also affords a method of rewarding those who have done conscientious work.

Obstetrical instruction should be given in the third and fourth year of the medical course, and should consist of—I. Lectures. II. Recitation. III. Manikin work. IV. Laboratory work. V. Demonstrations. VI. Ward classes. VII. Delivery of patients in the lying-in ward. VIII. Delivery of patients in the out-patient department. IX. Clinical conferences or clinics; and X. Examinations. The theoretical and laboratory work should be given in the third, and the practical work in the fourth year.

In considering the details of the course, I cannot do better than by practically repeating what I wrote two years ago for the Committee on Course of Study of the Association of American Medical Colleges.

LECTURES.

At present many teachers favor abandoning didactic lectures in favor of recitations and clinical conferences, but I believe that they still serve a useful purpose, but that their utility depends to a great extent upon the person giving them. If the teacher simply bases his lectures upon some standard text-book, I believe that he will best subserve the interests of his students by abandoning them, and allotting a certain number of pages or chapters of the text-book for recitation at each meeting of the class, which he will supplement by demonstrations of various kinds and free-hand drawings upon the black-board.

If, however, he has higher aspirations, and is able to avail himself of the recent English, French, and German literature, I believe that the didactic lectures will continue to play an important part in obstetric instruction, and will enable the student to obtain a rounded idea of the theory of obstetrics, four or five years in advance of the doctrines laid down in the latest edition of his text-book.

The lectures should be accompanied by as many demonstrations as possible, and the teacher should rely less upon carefully prepared diagrams and drawings, than upon plentiful free-hand drawings upon the black-board. The student may admire the former, but the latter he can reproduce in his note-book.

II. RECITATIONS.

A recitation hour should follow every third lecture, and the student questioned not only upon the work immediately preceding the recitation, but upon the work so far as it has been covered, thus necessitating a constant review of the entire subject.

The students should be encouraged to ask questions freely, and the recitations should be conducted as informally as possible; but at the same time a record should be kept of the work done, which should be considered in estimating the final standing of the student.

The recitation is almost as important for the teacher as for the student, as it enables him to emphasize and elaborate important points and discuss them with the students, and frequently demonstrates how imperfectly he expressed himself in his lectures. The recitations should, therefore, be conducted by the teacher himself, and not be delegated to one of his assistants.

III. MANIKIN WORK.

Exercises upon the manikin should form an integral part of the obstetrical course; but their scope should depend to a great extent upon the amount of material which is available for clinical instruction. If there is a large lying-in hospital in connection with the medical school, it will be unnecessary to attempt to teach the technique of abdominal palpation, vaginal touch and internal pelvimetry upon the manikin, as it can be taught very much more satisfactorily upon the living woman.

But if the clinical material is limited in amount, we consider it advisable that the students be taught the rudiments of palpation, touch and pelvimetry upon the manikin, so that they will know exactly what they are to do when they examine the patients in the wards, whereby clinical material is economised, and the patients saved considerable annoyance. For this purpose the BUDIN-PINARD manikin is to be recommended.

The main object of the manikin work is to teach the various operative procedures, and each student should be obliged to perform all possible operations upon the manikin, at least once during the session.

The manner in which the work should be conducted must vary according to the size of the class. If it does not exceed 50 members, I believe it best to attempt to instruct the entire class together. This can readily be accomplished by employing three or four manikins, one to every 12 students, and having the professor at one and an assistant at each of the others. In this way, three or four men can be operating at the same time.

At the beginning of the hour, the professor should give an outline of the operation, its mode of performance, indications, etc., and then call upon the students to perform it under his supervision. While this is being done, it is well to quiz the class, and thus make the meeting serve a double purpose. Such meetings should last about one and a half hours, during which at least 12 men can operate upon each manikin.

If the class exceeds 50 in number, it will be necessary to divide it into sections. We believe that the professor should always take part in the manikin instruction; and if it becomes necessary to divide the class, he should alternate between the sections.

IV. LABORATORY WORKS.

I consider it imperative that laboratory work should be included in the obstetrical course, as it is impossible for the student to grasp the subject intelligently unless he be more or less intimately acquainted with the minute structure of the organs of generation, and with the lesions associated with the various diseases, which may complicate the pregnant and puerperal condition.

Of course many of these subjects are studied during the first and second years in the courses upon histology and pathology; but owing to the immense field which must be covered in each of these branches, it is impossible to more than touch upon salient points, which are soon forgotten. It is therefore necessary that this field should be gone over again more in detail, and with special reference to the practical side of obstetrics, and this can only be done by one who is particularly interested in this branch of medicine.

This work should be delegated to a special assistant, whose duty it should be to prepare the material for the class, and with the aid of the others, to demonstrate it to them. While this work is going on, the class should meet twice a week for one and a half or two hours. The sections should be given to the students at one meeting, when they must stain, mount, and study them. At the next meeting they should be described by the instructor, who should then go around the class and ascertain that

the necessary points have been made out by each student. It is not advisable to give more than four or five specimens in any one week.

This work should be begun at the commencement of the year, and the normal anatomy of the genitalia and the development of the placenta thoroughly studied. When this is accomplished, the same hours should be devoted to manikin work, and after its completion, the pathology of obstetrics should be taken up. In this way, two meetings a week of one and a half to two hours each may be occupied profitably throughout the year.

If the class exceeds 40 or 50 in number, it will be necessary to divide it into sections of convenient size.

This work, of course, does not necessarily require special laboratory accommodations, as it may be done in the histologic, pathologic, or clinical laboratories, as may be most convenient.

In the following list are mentioned the specimens which may be profitably studied in this manner:—

1. Labia majora and minora.
2. Vaginal mucosa.
3. Longitudinal section of cervix, showing transition from cervical to vaginal epithelium.
4. Transverse section of cervical canal, showing its arborescent structure.
5. Endometrium of young girl.
6. Endometrium of adult.
7. Endometrium of old woman.
8. Pregnant uterus showing increase in size of muscle cells.
9. Involution uterus showing decrease in size of muscle cells and degeneration of vessels.
10. Menstruating uterus.
11. Uterine end of fallopian tube.
12. Central part of fallopian tube.
13. Lateral end of fallopian tube.
14. Round ligament.
15. Ovarian ligament.
16. Infantile ovary.
17. Girl's ovary.
18. Adult's ovary.
19. Senile ovary.
20. Corpus luteum, fresh.
21. Corpus luteum, eight to ten days old.
22. Corpus luteum, two to four weeks old.
23. Corpus luteum of pregnancy.
24. Ovary showing corpora fibrosa.
25. Ovary showing atrophic follicles.
26. Corpus luteum cyst.
27. Decidua, four to six weeks.
28. Decidua, four months.
29. Decidua, reflexa (from abortion).
30. Early chorion, to show double layer of epithelium.
31. Placenta, three months.
32. Placenta, four months, if possible in connection with the uterine wall.
33. Normal placenta at term.
34. Normal placenta at term injected.
35. Uterine wall and fetal membranes outside of placental site.

36. Young umbilical cord, fetal end to show stalk of umbilical vesicle.
37. Umbilical cord at term.
38. Inflammation of decidua.
39. Early placental infarct.
40. Developed placental infarct.
41. Hemorrhagic placental infarct.
42. Normal fetal epiphysis.
43. Syphilitic fetal epiphysis.
44. Syphilitic placenta, fresh, tease out chorionic villi. Compare with normal.
45. Syphilitic placenta, hardened.
46. Hydatidiform mole.
47. Tubal pregnancy, to show decidual and placental formation.
48. Rachitic bone.
49. Osteomalacic bone.
50. Eclamptic kidney.
51. Eclamptic liver.
52. Eclamptic lung.
53. Puerperal infection, showing streptococci limited to decidua.
54. Puerperal infection, showing streptococci in the uterine wall.
55. Puerperal infection, showing streptococci in the broad ligament.
56. Puerperal infection, showing non-involvement of the fallopian tube.
57. Puerperal infection, due to streptococci and putrefactive organisms.
58. Puerperal infection, due to putrefactive organisms alone.

It is apparent that any one who has carefully studied these sections will have a far better and more lasting conception of obstetrics than one who has not.

In addition to the normal anatomy, he will have precise and accurate information upon the ordinary diseases of the placenta, and will be able to diagnose fetal syphilis by the examination of the placenta and the fetal bones.

He will learn, for example, that the hydatidiform mole is not merely a myxoma of the chorionic villi, but that it presents marked changes in its epithelium, which places it in close relationship with the deciduoma malignum or syncytial carcinoma. He will also learn the true nature of rachitis and osteomalacia, and thus more readily understand the genesis of certain varieties of deformed pelvis. By studying the tissues from a case of eclampsia, he will learn that it is a disease not merely of renal origin, but that it is accompanied by lesions in the liver and other organs, which place it in a totally different light. The examination of sections from the various varieties of puerperal infection will afford most important indications for treatment, and teach the futility of curing the uterus in cases of streptococcal infection, and the marked benefit to be derived from the same operation in those forms due to infection with putrefactive and other organisms.

These and many other benefits will accrue from the study of obstetrics in this manner, and we feel that its

importance cannot be urged too strongly upon the teachers of obstetrics.

V. DEMONSTRATIONS.

Demonstrations should also play an important part in obstetric teaching. They should serve partly for the illustration of lectures and frequently should be given independently of them.

Every teacher should exert himself to obtain as many objects as possible which are suitable for demonstration. Many can only be collected gradually, such as frozen sections of pregnant and parturient women, as well as of the fetus and young children of various ages for demonstrating the fetal and infantile pelvis and the relations of the generative organs, series of ova at various periods of development, placental diseases and abnormalities, and many other anatomic and pathologic specimens.

Among the various aids for teaching which can be bought at any time, we may mention: TRAMMOND's three specimens of dissections of the female perineum and pelvic floor, which greatly facilitate the demonstration of this difficult subject; TARNIER's bronze pelvis, manufactured by COLLIN of Paris; EDGAR's aluminum pelvis and blackboard, manufactured by REYNOLDS of New York; EDGAR's models of the pregnant uterus at the several months of pregnancy, also manufactured by REYNOLDS. These models are of great value, in that they enable us to give the student an accurate conception of the exact size of the uterus at each month of pregnancy. EDGAR's casts illustrating the immediate repair of the lacerated perineum are also very valuable, while his leather uterus is a useful adjunct to the manikin, and enables us to teach the student how to pack the uterus with gauze, to check hemorrhage, and to sew up the lacerated cervix for the same purpose.

One of the greatest aids in teaching, especially in this country, where certain forms of contracted pelvis are rarely observed, is the series of 24 models of the various forms of deformed pelvis, prepared by TRAMMOND of Paris. All of them are modeled exactly after celebrated examples of pelvic deformity in the various museums of Europe. An appliance, which is invaluable for demonstrating the genesis of the various forms of deformed pelvis, is the pelvis in "composition molle," manufactured by TRAMMOND, which can be given any shape by the hands.

This list might be extended almost indefinitely, but we have referred only to such models and appliances as we consider essential.

Any one interested in this line of work is referred to the interesting article of Dr. J. C. EDGAR, in the November and December numbers of the *New York Medical Journal* for 1896, which contains many valuable suggestions.

VI. WARD CLASSES.

For teaching the technique of examining pregnant women, the class should be divided into small groups, whose size must depend upon the amount of clinical material available. Each student should be carefully drilled in the principles and practice of asepsis, taught to diagnose the position and presentation of the fetus

by abdominal palpation and vaginal touch, impressed with the necessity of measuring the pelvis, both externally and internally, in every case, etc. They should also be required to take the histories of patients in the ward, to make the necessary urinary examinations, and to accompany the professor or the resident obstetrician at the daily visit.

They should also be required to examine the puerperal women just before they are discharged from the hospital, so as to become acquainted with the condition of the genitalia in the latter part of the puerperal period.

Each student should be required to examine at least ten pregnant women, not including the cases seen during labour, before being allowed to come up for the final examination in obstetrics.

VII. DELIVERY OF PATIENTS IN THE LYING-IN WARD.

A small number of students, preferably two, but certainly not more than four, should be called to the ward to see every case of confinement. They should be required to examine the patient, both internally and externally, once during the first, and again during the second stage of labor. In uncomplicated cases one of the group should deliver the woman himself, under the guidance of a competent assistant.

A much larger number of students may be called to operative cases as on-lookers. Each student should be required to see at least five cases delivered in the lying-in ward; for it is only there that he can learn the ideal method of conducting a labor case. A service of 150 cases yearly will be sufficient for a class of 100 students, provided four students were called to each case.

VIII. DELIVERY OF PATIENTS IN THE OUT-PATIENT DEPARTMENT.

An obstetric dispensary should be organized in connection with every medical school, and poor women delivered at their own homes by students under the personal supervision of an assistant, who should be accompanied by a trained nurse if possible.

The custom of sending two students alone to a labor case cannot be deprecated too strongly; for they are almost certain to fall into slipshod methods and fail to carry out the more or less rigorous technique which they have learned in the lying-in ward. But when they are sent to these cases under the charge of a competent assistant, who is prepared to demonstrate the case and to see that the rules of asepsis are strictly followed, we believe that the out-patient obstetric service will be quite as useful in training students as the lying-in ward, and perhaps more so, in that it teaches them to conduct a labor aseptically under all the disadvantages which are encountered in the homes of the poor, quite as well as in the ward with all its conveniences, and thus they are fitted directly for private practice.

The student should be required to visit the patients during the puerperium, say for the first five days and again on the seventh and tenth days, and should be provided with a fairly full printed history sheet in which he should be required to outline the more important facts concerning the case, which should be given to the assistant in charge after the last puerperal visit.

It should be understood that the instructor regards the return of the history sheet as an important matter, and that the manner in which it is filled out plays an important part in determining the final standing of the student. I consider that two cases carefully observed in this manner are quite as valuable to the student as ten cases seen in the usual way without supervision. Each student should be required to attend at least five out-patient cases; and a service of 250 cases a year would be sufficient to furnish cases for a class of 100 students, if two students conducted each case.

In large cities a considerable part of the out-patient obstetric material is lost for the purposes of clinical instruction by the time consumed in getting the student to the case, especially when he lives a considerable distance from the hospital. To obviate this difficulty, one or more rooms should be provided by the department, according to the size of the service, in which two or more students should be kept on call at night, until they have seen their quota of cases.

IX. CLINICAL CONFERENCES.

During the fourth year there should be a weekly meeting of the class, in which most of the teaching should be done by the students themselves. Here interesting cases which have been observed by the students are discussed. A student who has lately seen an interesting case should be informed a day or so in advance that he is expected to report upon it. When the class meets, he should read a concise history of the case, and then perform upon the manikin the operation which may have been required. The case is then discussed by the instructor, and the class questioned concerning more or less cognate cases.

At another meeting, a dead-born child and its placenta may be exhibited. Two students may be called upon to perform an autopsy upon the child to ascertain the cause of its death; to a third student the placenta may be given, with instructions to tease out some villi, examine them under the microscope, and ascertain if they present syphilitic lesions. This will consume about half an hour. Then the diagnoses are called for, and the history read by the student who observed the case, and it is attempted to bring the clinical history into accord with the anatomic findings, and *vice versa*.

At another meeting, several ova of various ages may be given to as many students, who should carefully examine them and then report what stages of development they represent, and their reasons therefor.

Another very practical manner of spending the hour is to take three deformed pelvis and give each one, with a pelvimeter and a piece of paper to two students. Allow 15 minutes for measuring the pelvis, and then call upon one student in each group for the diagnosis, his reasons for making it, and the measurements upon which it is based. And ask the other how he would diagnose a similar pelvis in the living woman, and what procedure he would adopt to deliver her, etc.

Of course this kind of work may be amplified to almost any extent, and is only limited by the amount of time and material at the disposal of the instructor.

X. EXAMINATIONS.

I do not believe that the standing of a student should be based solely upon the mark obtained in a written examination, but consider that it should also depend upon the character of his class work and the general impression which he makes upon the instructor; and that each of these factors should count equally in estimating his value.

At the end of the third year the student's standing should be estimated from three sources—written examination, recitations, and general class work. The value of the first two is readily estimated, while that of the general class work is of a more personal character, and therefore cannot be determined so accurately. It is based less upon the actual performance of the student than upon the general impression which one gains of him. Thus many a student who can pass a good examination and answer fairly well at recitations, impresses one as an indifferent or poor man by the manner in which he answers and asks questions, and by the way in which he appears to take hold of the subject; while, on the other hand, another student may pass a poor examination, but still show by his class work that he is really an excellent man.

In other words, I advocate basing a part of the total mark upon one's estimate of the personal equation of each student. In very large classes this, of course, is out of the question, and even in small classes one's estimate is not always correct. But any mistake in this respect can usually be equalised or corrected by marking the examination papers without knowing by whom they are written.

In the fourth year the standing should likewise be estimated from three sources—recitations, clinical work, and a practical oral examination at the end of the year.

In estimating the value of the clinical work, special stress should be laid upon the manner in which the history-sheets are filled out and upon the general behaviour of the student. The final examination should be conducted at the bedside or with the manikin, and an attempt made to test the practical knowledge of the student. At the same time questions should be asked of such a character as to give some idea of his powers of reasoning, instead of how well he can memorize a text-book.

Examinations of this character consume considerable time and cannot be well applied to large classes unless conducted by several examiners. But where they can be carried out, I am confident that they afford the most satisfactory means at our disposal of ascertaining what a student is worth.

HYSTERICAL PYREXIA.

By DR. G. KOBLER.

Case I.—A man, aged 21, had a fit which began with general muscular twitchings, and ended with opisthotonus, consciousness being partially lost. The respiration ceased completely for 30 to 45 seconds. The temperature rose to 107.6° , but the pulse remained 72. Similar attacks occurred regularly every day at almost the same time, and lasted 3 to 10 minutes. During the attack

the man moaned and cried out, and before and after there was oesophageal spasm, which prevented swallowing. In the intervals there was constant vomiting of food. Alcohol invariably produced an attack. Enemata of distilled water and mucilage had the same sedative effect as when they contained chloral hydrate. It was proposed, in the hearing of the patient, to place him in an ice-cold bath whenever an attack occurred. Only two very mild attacks followed this threat, and from the eighth day no further attacks or pyrexia occurred. For a time an uncertain gait remained, such as results from cerebellar tumour, but recovery was soon complete.

Case II. A boy, aged 11, of good mental abilities, had intestinal catarrh, which soon yielded to treatment. Though perfectly well all day, at the stroke of 6 every evening he gave a single barking cry and complained of severe pain in the iliac fossa, which, however, was not tender. During the attack, which lasted for 3 or 4 hours, there was motor aphasia, though some barking sounds were produced. The patient understood every word spoken near him, and if a joke were made, concealed his amusement with difficulty. The attack ceased as suddenly as it began; the boy would then demand food and soon fall asleep. At the beginning of an attack the temperature rose abruptly and soon reached 103.6° or even 105.8° . The diagnosis lay between (1) malaria with nervous symptoms, (2) purulent appendicitis, and (3) hysterical pyrexia. The first seemed excluded by the absence of rigors, sweating, and splenic enlargement; the second by the absence of tenderness and intra-abdominal swelling. The boy was isolated in a home and threatened with an operation and the battery if there were any further attacks. The attacks, together with the pyrexia, disappeared promptly and did not return.

WORMSER and BING (*Monch Med. Week.*, Oct. 2, p. 1373, and Oct. 9, p. 1417).—A barmaid, aged 24, belonging to a highly neurotic family, developed hysterical signs at puberty. The sensory abnormalities were anaesthesia, analgesia, hyperaesthesia, megrim, diplopia, contraction of the visual field, and achromatopsia. The motor disturbances were astasia-abasia (*Review*, Vol. II, p. 695), tremors and convulsions with contractions of certain groups of muscles. The patient was erotic and of a typically hysterical disposition. She had acquired gonorrhoea, which was followed by such abdominal pain that the left ovary and tube were removed, and the retroverted uterus was ventrified. Later, total vaginal hysterectomy and right oöphorectomy were performed. At the first operation the only abnormalities were a retroverted uterus, and fixation of the left tube and ovary by adhesions; at the second the right ovary was enlarged, and the tube thickened and tortuous. There were no abscesses. Eight weeks after the operation, at the time when, but for the oöphorectomy, the meneses should have appeared, the patient had a rigor with pains in the loins. The axillary temperature rose to 101.8° and the pulse to 120; later the temperature reached 104.7° . Ten hours later there were partial unconsciousness, cyanosis, contractions of various muscles, and the hands were in the position of tetany—a condition which the writer names "hysterical *petit mal*." Slight pyrexia continued for 36 hours. Every organic source of pyrexia could be excluded; the stamps of the broad ligaments were not infiltrated, and there was no albuminuria.

A number of exact observations show that there is a hysterical pyrexia which is not factitious. That pyrexia may have a central origin is shown by its occurrence after cerebral traumatism. RICHTER has produced it experimentally by injury of the corpora striata. According to CUZIN, ordinary toxic fever depends on stimulation of the thermogenic centres in the base, while hysterical pyrexia is due to paralysis of the inhibitory centres in the cortex. If this is so, it is analogous to other hysterical manifestations, which depend on an absence of cortical control over the lower centres.

A MIRROR OF PRACTICE.

TREPHINING OF THE SKULL FOR FRACTURE.

By M. N. OHREDAK, L.M.S., RAI BAHADUR,
Civil Surgeon, Barabanki.

(Reported by Assistant Surgeon E. MILLICANS, M.B.)

KALI DIN, a Hindu male, aged 35 years, resident of Tiambe, district Barabanki, was brought into the Sudder Hospital by the Barabanki Police on the 26th of January 1901, at about 12 noon, quite senseless, with more or less stertorous breathing. The history, as far as gathered from the people who accompanied him, was as follows:—

History.—According to the statement of his relatives, on the morning of Friday, the 25th January 1901, some eight persons rushed into the house of KALI DIN and began beating him with blows and kicks. His (KALI DIN's) relatives found him lying on the ground quite senseless. Since then, until the time of his admission into the Sudder Hospital, Barabanki, he has been in this comatose state.

Condition on Admission.—Patient altogether unconscious, no amount of shouting had any impression on him whatever. Breathing laboured and stertorous. Pulse slow and laboured. Right side of the body colder than the left side. Conjunctival reflex with right side absent. Pupils on either side equal. On careful examination it was found that the patient was paralysed on the right side. The lower incisor teeth were found loose. Deglutition impaired. Urine is voided involuntarily. At times he moves his left leg, but the rest of the body is like a log of wood. The head of, left radius dislocated forward, but this was said to be an old dislocation. There is a swelling on the left side of the scalp about 2½ inches square above the left ear. There are no external wounds, and no cup-shaped depression as is usually found in depressed fracture.

Diagnosis.—Compression of the left side of brain either from effused blood or depressed fracture.

Treatment.—It was decided to adopt conservative treatment and watch the progress of the symptoms. It consisted of administration of calomel, rest, shaving of head and enemata. In the way of nourishment, milk was given in small quantities, which was swallowed with great difficulty. Nutrient enemata of eggs and milk were also given. There being no change in the symptoms for the better by about 12 o'clock next day, but, on the contrary, the pulse getting rapid and weak, it was decided to trephine the skull and remove the cause of pressure if possible.

Operation.—The patient was therefore put on the table and the left side of the head having been well cleaned first with soap and water and then with turpentine and carbolic lotion, a semi-circular incision was made above the left ear over a spot which corresponded with the junction of the frontal bone with the anterior-inferior angle of the left parietal. This was the spot in which there was a swelling as mentioned above. No chloroform was necessary. The flap was reflected downwards, and it was noticed that the meninges were considerably ecchymosed. The bone being exposed, a linear frac-

ture was noticed running through the left limb of the coronal suture. To ascertain the extent of the separation, an incision was made along the coronal suture upward, and it was found that the whole of the left limb of the coronal suture was opened, and a finger-nail could be introduced into this gap. The crown of the trephine was then applied on the anterior-inferior angle of the left parietal bone just behind the seat of fracture. On removing the circular piece of bone out by the trephine, a dark blood clot was seen pulsating, and on gentle examination it proved to be an extensive one, situated between the dura mater and the skull. With the spoon end of the director, and partly with the finger, this clot was removed piecemeal and a big space was left between these two structures. The weight of the clot removed was approximately an ounce. The cavity was then flushed with (1 in 5000) perchloride lotion, the edges of the wound brought together by silkworm guts, and a piece of muslin was left in at the depending part of the wound to act as a drainage tube. During and after the operation no fresh blood was noticed to flow from inside the trephine hole. Before the patient left the table, calomel, gr. x, with a little ghee was administered to him with much difficulty. It was observed that after the removal of the blood clot the patient, who was altogether silent when put on the table, moaned a little.

The patient was then put to bed. A nutrient enema was given, which he retained. After the operation the pulse rate increased, beating 136 per minute, and the respiration was 48 per minute. Temperature 99° F. The movements of the left leg became more frequent.

28th January 1901.—Morning temperature 99° F. Nutrient enema repeated in the morning, but was rejected; with it he also passed some grumous-looking foul-smelling faecal matter. As the bandage was found soaked, dressings were changed. The cornea of right eye was found a little hazy at its lower segment, and there was also a little discharge. The eye was therefore washed with boric lotion, a drop of atropine put in and bandaged up. An ounce of milk was given him every hour. He had also Brand's Essence of Chicken, a teaspoonful every hour. Patient can swallow better. Slowly getting restless. Movements of his left leg more frequent, but patient still unconscious to a very large extent. At 4 P.M. a simple warm water enema was given with the object to clear his bowels, and two hours after this nutrient enema was repeated, which was again rejected. Evening temperature 99° F.

29th January 1901.—Morning temperature 98° F. Pulse 100. Respiration 46 per minute. Nutrient enema given in the morning, but again rejected. Eyes washed and dressed as before. Pulse began to sink, and the patient sank suddenly and died at 12 noon.

Autopsy.—The Civil Surgeon being out in the district, I had to perform the post-mortem examination, the report of which is copied below:—

External.—There is a semi-circular cut about 5 inches long over the left ear, being the result of an incision made for trephining operation, and another joining it along the forehead about 2 inches long. On opening the scalp a circular hole is found about 1 inch in

diameter, about 2 inches above the left ear, being the result of trephining. The left part of the coronal and a part of the sagittal sutures have opened. There is found dislocation of head of left radius forward, about four marks of leucoderma on left shin and one over right ankle-joint. Some three front teeth broken. Ecchymosis of top of head more on the left side.

Head.—On opening the skull an extensive, more or less, oval clot of blood on left side of brain above the left ear about $4\frac{1}{2}$ inches in diameter between dura mater and skull; on opening the dura mater left side of brain matter depressed.

Lungs.—A little adhesion of left pleura with the chest wall. Hypostatic congestion on both sides. Lungs normal.

Heart.—Both ventricles of the heart full. Heart normal.

Liver.—Normal.

Spleen.—Normal, a little smaller than natural.

Stomach.—Normal.

Intestines.—Normal, distended more or less with flatus.

Kidney.—Normal.

Bladder.—Normal, containing about 4 ounces of clear healthy-looking urine.

Cause of Death.—Compression of brain.

Remarks.—The sudden death of the patient and an extensive blood clot found on *post-mortem* in the site which was cleared of blood clot proved probably a fresh rupture of left middle meningeal artery.

In cases like these, trephining is the only chance and should be resorted to as early as possible. In this case more than 50 hours had elapsed before the operation was had recourse to, and for reasons obvious it could not have been done earlier. This operation should therefore encourage other surgeons on like occasion, because in these days of antiseptic surgery opening of the different cavities of the body has not the drawbacks it had a few years back.

LITHOLAPAXY FOR STONE WITH A CATHETER NUCLEUS.

By H. V. CRITCHLEY HINDER, M.B., CH. M.,

Honorary Surgeon, Prince Alfred Hospital; Lecturer on Clinical Surgery, Sydney University, Sydney.

An old man, aged 74 years, came to me complaining of great pain at the end of micturition, felt in the perinæum and along the urethra, and also constant pain in the supra-pubic region and in the perinæum, much increased on exercise. He used to carry a couple of cushions to sit on when he was compelled to ride in a trap. He passed urine every twenty minutes during the day, and about every hour during the night. The stream was feeble and frequently stopped suddenly during the act. He rarely passed blood, and when he did do so it was at the end of micturition, just a slight stain, and at times a few small, blackish clots of no particular shape. These symptoms began a few months ago and gradually increased, but he was by no means clear about his history. His urine was

very offensive and thick with pus. He had one ounce of residual urine. Per rectum, his prostate was twice the normal size. Using the sound without anaesthesia, I could feel nothing, as the bladder was extremely tender, but I judged that the prostate offered but slight obstruction to the internal orifice of the urethra. The stone was subsequently found pouched post-prostatically, and the exposed part covered with pus and debris.

The patient was kept in bed, and I removed a portion of each vas deferens, and washed out his bladder twice daily with a solution of pot. permang. Boracic acid and strychnine were given three times daily by the mouth. In fourteen days there was no residual urine, and the urine was quite clear. On examining with the cystoscope, there was no difficulty in seeing the crest of the stone pouched behind the prostate. It appeared to be about the size of a small hen's egg. A No. 14 lithotrite was introduced and the stone crushed. On withdrawing the lithotrite I noticed a small portion of rubber in the blades, and later, on evacuating, small portions of a red rubber catheter repeatedly plugged the eye of the evacuator. On again using the cystoscope, about six pieces of broken catheter could be seen floating about, and were with difficulty captured by the lithotrite or the evacuator and removed. Finally, a fair-sized piece was seen stuck to one side of the bladder wall. The lithotrite was introduced, and turning towards this the piece was picked off and withdrawn. The patient experienced hardly any pain on micturition after the operation. The next day there was no pain, and the urine was smoky in tint, and in the evening of the same day the urine was clear; and on the fourth day the old man was getting about quite well.

On further enquiry he told me that he had used a catheter about ten months ago and that he had lost about two or two and a half inches of it, but could not make out where it had gone.

I have always maintained that a thorough litholapaxy cannot be completed with certainty without the aid of a cystoscope, and this case would appear to, at least, lend some support to this view.

Furthermore, it is quite worth while to give the patient rest in bed for some time before operating, so as to reduce the amount of cystitis. This undoubtedly materially assists to bring about a speedy recovery after operation.

LAPAROTOMY FOR INTESTINAL OBSTRUCTION: REMOVAL OF A LARGE VERMIFORM APPENDIX.

By GEORGE THOS. BEATSON, M.D.,

Surgeon, Western Infirmary, Glasgow.

In a case recently under my care, marked by the presence of a large tumour in the abdomen, towards the right iliac region, as symptoms of intestinal obstruction supervened, laparotomy was done.

On opening the abdomen, the tumour was found to be partly occupying the pelvis and pressing on the upper part of the rectum. Examination showed it to be a very much enlarged vermiform appendix, and it was accordingly

removed. At the same time the existence of several tumour masses inside the cæcum and ascending colon were made out.

Examination of the tumour removed showed it to be kidney-shaped, of fleshy appearance, and of a bright red colour, resembling in places the hue of a boiled lobster-shell. Its distal extremity was somewhat pointed, and on its base was a small area the size of a florin, where the division took place when it was removed. The remains of a mesentery could be distinctly made out. The surface, as already mentioned, was of a bright red mottled appearance, but in other respects was like the outer surface of a vermiform appendix. A narrow cavity admitting a probe ran down its centre, and when cut into its exposed surface was soft and friable and of a delicate pink colour, except towards the distal extremity, where it was much darker, owing apparently, to hæmorrhage into the tissue. A distinct capsule existed, in appearance like the thickened coats of an appendix. It measured 5 inches in length and 3 inches across the thickest part.

Microscopically the fleshy substance referred to above was seen to consist entirely of lympho-sarcomatous tissue, and a delicate framework of fibrous tissue forming the capsule was invaded by and almost obscured by the cells of the new growth.

From the above state of matters it would appear that the appendix had participated in a lympho-sarcomatous invasion of the large intestine. From its bulk, one might almost be justified in regarding it as the starting point of the disease. Whether this be so or not, I have thought it right to record the case as one that, if not unique, is at any rate very rare.

A CASE OF ACROMEGALY.

By T. RENELL ATKINSON, M.D., DURH.

A MARKET gardener, aged 36, married, is at present under my care suffering from this disease. His height is 5 feet 11 inches, and his weight 14½ stone. His father died at the age of 81, and his mother is alive and well at 82. He has seven brothers and three sisters, all of whom are well. He had never been ill until he had a severe attack of influenza seven years ago, from which he dates his present trouble. He first noticed that his hands were getting larger about six years ago. The hands and feet have slowly increased in size ever since. His hands are large and broad, and very spade-like; the nails are broad, and the lines on the hands and wrists are very deep. His feet are very large, especially the great toes. The feet measure 11½ inches from toe to heel, and 5½ inches across the root of toes. The toe-nails are small. The head is large and long; its circumference is 24 inches, its width across the forehead is 5 inches, across the malar bones 6 inches. The nose is 2½ inches long; the nostrils are large and broad. The teeth are separated ¼ inch in the upper jaw. The chin does not protrude. The eyelids and ears are normal. The lower lip is much thickened and protruding. The face is 13 inches long from forehead to chin. The chest measures 43 inches in inspiration, 40½ inches in expiration; the ribs are thickened. There is dulness over the manubrium. The spine is normal; there is no kyphosis. He does not suffer from headache, but is always drowsy, and can sleep anywhere and at any time. His heart is normal. Sight is normal; there is no hemianopia. The muscles and skin are normal, but he perspires easily. He cannot close his fists tightly, and has great trouble in picking up a pin. He is somewhat bow-legged, especially on the left side.

Indian Medical Record.

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RHEUMATIC FEVER.

OUR esteemed contemporary *The Practitioner* favours the medical world with the publication, in a recent issue, of a series of eminently interesting and practical papers by men of note on several essential factors in the study of Rheumatic Fever. The papers in serial order are: I. The Epidemiology of Rheumatic Fever, by Dr. Arthur Newsholme, M.D., F.R.C.P. (Lond.), Medical Officer of Health, Brighton. II. The Pathology of Rheumatic Fever, by Dr. F. J. Poynton, M.D., M.R.C.P. (Lond.), Assistant Physician to the Hospital for Sick Children, Great Ormond Street, and Casualty Physician to St. Mary's Hospital. III. Rheumatic Fever in relation to the Throat, by Dr. St. Clair Thornton, M.D., M.R.C.P. (Lond.), F.R.C.S. (Eng.), Physician to the Throat Hospital, Golden Square, and Surgeon to the Royal Ear Hospital, London. IV. The effects of Rheumatic Fever on the Heart, by Dr. G. A. Gibson, M.D., D.Sc., Physician to the Royal Infirmary, Edinburgh. V. Rheumatism in Childhood, by Dr. George F. Still, M.A., M.D., F.R.C.P., Assistant Physician for Diseases of Children, King's College Hospital, and Assistant Physician to the Hospital for Sick Children, Great Ormond Street; and VI. The Treatment of Rheumatic Fever, by Dr. Arthur P. Luff, M.D., D.Sc., F.R.C.P. (Lond.), Physician in charge of Out-patients in St. Mary's Hospital.

We endeavour to cull the more important observations from each contribution, but would recommend a perusal of the *brochure* in its entirety.

I. THE EPIDEMIOLOGY OF RHEUMATIC FEVER.

After indicating by statistical evidence the frequent epidemic nature of rheumatism, Dr. Newsholme proceeds to discuss the arguments as to its infective character. These he recites as follows: 1. The clinical features of the disease and its analogy with recognised specific febrile diseases confirm the view that it belongs to the same group. The mode of onset, the frequent occurrence of preliminary sore-throat and the course of the fever point in this direction. It shares its tendency to relapse with such diseases as influenza, enteric fever, scarlet fever and diphtheria. 2. The liability to second and later attacks does not preclude this conception of the disease. There is among diseases admittedly infective a regular scale of immunity, following a first attack from small-pox, in which it is nearly absolute through enteric and scarlet fever, in which it is feebler to diphtheria in which immunity is evanescent, and down to erysipelas in which one attack appears to predispose to further attacks. Rheumatic fever comes at this end of the scale. 3. Nor can it be said that family inheritance argues against the infective character of rheumatic fever. The special proclivities of certain families to diphtheria, enteric and scarlet fever is notorious. That a special proclivity is required to develop the introduced virus of rheumatic fever may be admitted; but this does not preclude its infective character,

any more than in the analogous case of erysipelas. 4. The apparent absence of infection from patient to patient is explicable on the ground that the contagium is buried in the infected joints. Direct personal infection is relatively rare in typhoid fever and cholera, in which the contagium has exit from the patient. It is likely that the majority of the micro-organisms causing rheumatic fever pay for their hardihood in invading the system by securing a sepulture in its cells. 5. The fact that the joints are the common seat of the trouble favours the infective theory. As Dr. Payne puts it, the "vessels of the synovia of the joints appear to have some special proclivity to form a nidus for the wandering germs of disease." (6) The therapeutics of the disease confirm the same view. The specific power of salicin is comparable to that of quinine in malaria and of mercury in syphilis. (7) The bacteriology of the disease was also confirmatory. As to the direct evidence of its infective character, its absence did not negative its possibility. The infective character of phthisis had only recently been realized by the majority of physicians.

On the influence of climatic conditions, it was shown that the relationship between dampness of air and of soil, and excessive prevalence of rheumatism, was so generally accepted that every text-book of medicine and hygiene had enshrined and endorsed it, and yet every statistical fact regarding rheumatic fever contradicted the view that its prevalence was favoured by these conditions. Possibly the supposed analogy or relationship between malaria and rheumatic fever had influenced, and to some extent created, the common notion that wetness was a cause of rheumatic fever. The confusion between the chronic forms of "rheumatism" and rheumatic fever was, however, probably the chief cause of this serious error. The fact that epidemics of rheumatic fever occurred in years of minimum rainfall prepared the way for the statement that they occurred in years in which the soil was exceptionally dry and the ground water exceptionally low. The level of the ground water had not in itself any causative relationship, but was simply the best index, when it could be ascertained, of certain conditions of the soil favouring the extra-corporeal life of the hypothetical microbe of rheumatic fever. We could only surmise how and why dry years favoured the causation of epidemic rheumatic fever. Direct infection from patient to patient was rare, if it occurred. It seemed most feasible to regard rheumatic fever as essentially a soil disease, due to a saprophytic soil organism, which is "drowned out" in wet years, multiplies rapidly in dry years, and is transferred to the human recipient by unknown means. Possibly dust connection accounted for a large proportion of the cases. In dry years the number of contagious particles was probably increased and the facility with which they are communicated to the human subject was similarly increased. In the light of the recently acquired knowledge of the methods of infection in malaria, it was not, in the author's opinion, too far-fetched to surmise that inoculation of the contagion of rheumatic fever might be caused by domestic vermin, or that the house fly might convey it to milk or other foods.

II. THE PATHOLOGY OF RHEUMATIC FEVER.

Various theories of the actual mode of causation of rheumatic fever had arisen. Cullen, in 1784, had attributed the disease to the direct influence of cold upon the joints, the first result being a local inflammation and later fever. The nervous theory was first suggested by Dr. Mitchell in 1831, and was supposed to be due to chill or exposure causing an irritation of the cutaneous sensory nerve fibres over a wide area, and setting up a central disturbance in the spinal cord or medulla oblongata. This in turn was transferred to the nerves of the various organs and tissues which are implicated in rheumatic fever, and caused the various rheumatic manifestations. It was difficult to accept such a view, although it doubtless had rendered a valuable service to the pathology of rheumatic fever by calling attention to the condition of the nervous system. The toxic theory expressed the cause of rheumatism to be some poison circulating in the blood, the result of a perversion of the metabolism of the healthy body (the chemical theory), or the result of a disturbance in the nerve centers of the medulla effected by a perverted metabolism (the neuro-chemical theory), or the results of an infection from without by some microbe (the infectious theory).

The Chemical Theory.—The suggestion that the poison was lactic acid had obtained very wide acceptance, but important as some of the experimental investigations had been, it still remained true that lactic acid had not been conclusively demonstrated in excess in the tissues and excretions during the course of rheumatic fever, and even if this had been the case, the proof that this excess was the primary cause would still be wanting. Dr. Latham and Dr. Haig had attached great importance to the part taken by uric acid in the production of rheumatic fever, but those most qualified to judge, namely, the chemical pathologists, were not agreed upon the fact that uric acid was in excess in the blood tissues or sweat secretion of rheumatic fever.

The infectious theory.—This theory had, during the past ten years, gained ground in every direction. In 1887, Dr. A. Mantle originally advanced it, and it was first seriously discussed at a meeting of the British Medical Association in 1895, when Dr. Cheadle introduced the discussion. In the same year Dr. Newsholme had strengthened the position by his extensive researches, and it was undoubted that the morbid anatomy of the disease lent additional support to this view.

The malarial theory.—Some had thought rheumatism closely akin to malaria, but no one had discovered in the blood of patients suffering from rheumatic fever a condition in any way resembling the well known changes that occurred in malaria fevers.

The other important views were: (1) That there is no specific micro-organism, but that the disease is a form of septicaemia which owes its origin to staphylococcal or streptococcal infection. The one great objection to this was the clinical history of rheumatic fever itself, and also that it was very rare to find suppuration and its accompanying clinical symptoms. (2) That the infection is a mixed one, the association of two micro-organisms being requisite to produce the

complete picture of the disease. As yet no substantial proof had been advanced of this, whilst there were many facts which pointed to the probability that rheumatic fever was due to a simple infection. (3) That the micro-organism is a specific bacillus. If the investigations of the French observers, Achaume, Thierloix, and Betten-court, were correct, it was clear that a specific anaerobic bacillus was a cause of rheumatic fever. (4) That the micro-organism was a specific diplococcus. Not only some others, but the writer himself had in 12 cases, in association with Dr. Alexander Paine, isolated a diplococcus which had produced on intravenous inoculation into rabbits the clinical appearances of rheumatic fever, and had also isolated these organisms from the blood, urine and tonsils of the living subject suffering from rheumatic fever, and also from the pericardial exudation and cardiac valves after death. They had also demonstrated them in the visceral and parietal pericardium, cardiac valves, the pleural and pericardiac exudations, the tonsils and rheumatic nodules. The most important fact deducible from these and further investigations was that this diplococcus was a cause of rheumatic fever. As yet the writer was not in a position to state that this was the only cause, but he believed that this organism would eventually prove to be the actual cause of all cases of rheumatic fever which conformed to the usual type of the disease. It was not easy to demonstrate the organisms in the human tissues. The relapses which are so frequent in rheumatic fever, are explained on this theory by the invariable presence, according to the writer, in the healing lesions and in cultures on unsuitable media, of a solitary coccal form, larger than the individual element of the diplococcus. This form persisted after the disappearance of the diplococcus, and possibly might persist in the living tissues for some considerable period of time, and recover virulence if the vitality of the tissues were lowered by exposure to cold, premature exercise, or possibly improper diet. Heredity, so marked a feature in the history of rheumatic fever, was no bar, thought the author, to the acceptance of this explanation, for the diplococcus appeared to require a somewhat peculiar culture medium to exhibit its specific characters.

III. RHEUMATIC FEVER IN RELATION TO THE THROAT.

There were two different, but not necessarily contradictory, views on this subject. The first was that in a number of cases of rheumatic fever the poison entered the system through the tonsil, the inflammation of which might be the earliest indication of the systemic affection. The second was that certain inflammations of the tonsil occurred with greater frequency, in arthritic diathesis. It was undoubted that the tonsil did serve as an opening into the system which, if not maintained in a healthy condition, might allow the passage of general infection, and the author indicates by statistics that 27.17 per cent. of rheumatic patients had suffered previously from tonsillitis. Newsholme, Abraham, Poynton and Payne had all shown that the tonsils were frequently the port of entry of the rheumatic virus. Other authorities had dissented, especially on the ground that the administration of salicylate of soda in tonsillitis was not effective, as it would be were there any foundation for

the rheumatic nature of tonsillitis. Our knowledge in this connection was thus summed up: (1) It is undoubted that a certain number of cases of acute rheumatism are preceded by an angina in a proportion varying from 30 to 80 per cent. (2) Both rheumatism and angina have many etiological points in common—season of year, cold, wet, fatigue, depression, vitiated air, etc., (3) The connection of angina and rheumatism, though undoubted in a number of cases, was not yet clearly established. (4) The tonsil might be the port of entry of the rheumatic virus, and this even although the naked eye appearance of the throat gives no indication of its being affected. (5) The particular affection of the throat which is associated with rheumatism is not yet established. Apparently it is not peritonsillar abscess (quinsy). (6) Peri-tonsillar inflammation does not appear to be arrested by the administration of anti-rheumatic remedies. Many cases of parenchymatous and lacunar tonsillitis, on the contrary, are considerably benefited by the administration of salicin or salicylate of soda. That this action proves the rheumatic nature of the disease cannot yet be accepted. (7) The question requires further investigation in two directions: one, in differentiating the various forms of angina and determining the one which is associated with rheumatism; the other, in further research to discover the true nature of rheumatism.

It was well known that the pharynx, nose, and larynx could be seats of rheumatic inflammation. In the last-mentioned form there was always tenderness on palpating the region of the crico-arytenoid joint, i.e., the outer and upper border of the thyroid cartilage. The movement of the vocal cord on the same side was at first sluggish, and was said by some to be jerky. With the development of inflammation or effusion into the joint, the vocal cord on the same side became fixed. There was thus a difficulty in diagnosing between a rheumatic crico-arytenoid inflammation, and paralysis of the recurrent laryngeal nerve. The following symptoms would help in distinguishing the first condition: (1) Dysphagia. (2) Painful cough. (3) Occasional tumefaction over the arytenoid. (4) Sharp pain on pressure along the posterior border of the thyroid cartilage. (5) The healthy arytenoid is not tilted forward on to the affected one, and the healthy vocal cord does not, during adduction, pass across the median line towards the other side. In addition there was (a) the existence or pre-existence of an acute pharyngeal catarrh; (b) laryngeal hyperæmia; (c) a more or less pronounced feverish condition, and (d) extra laryngeal manifestations of arthritis. When recovery took place, more or less permanent disturbance of movement might remain in the form of partial or complete ankylosis, the treatment of which was generally hopeless.

IV. THE EFFECTS OF RHEUMATIC FEVER ON THE HEART.

The fact had been acknowledged generally that in acute rheumatism cardiac may precede articular lesions. This led to the conclusion that the relations of rheumatism as regards the heart and the joints were similar in nature, if different in degree. The rheumatic poison might produce pericardial, myocardial, or endocardial changes, all probably due to a general microbial infection

acting in the case of the pericardium—a vascular membrane—and the myocardium—a veritable blood sponge—through the nutrient blood supply, and, in the case of the endocardium, most probably through the blood flowing over the surface.

Anatomical changes : Pericarditis.—Cloudiness of the endothelium ; aborescent blood-vessels and small extravasations ; fibrinous deposit on the surface ; a certain amount of fluid usually ; microscopically the fibrinous deposit is composed of layers fitted together like the structure of a schistose rock and between the strata are small round cells with leucocytes and hæmocytes ; in many cases masses of organisms may be detected amongst the fibrinous web : most probably the earliest stage was an attempt on the part of the endothelial cells to enact a phagocytic rôle. Pericarditis might end in complete resolution, but in many instances a thickening was left upon the epicardium—the milk spots or maculæ tendinæ—and also some adhesion between the two pericardial surfaces.

Myocarditis.—Speaking generally, in an early stage the tissues were thickened, softened and deeply tinted ; microscopically the muscle fibres were large and swollen, the transverse striation almost entirely obliterated, and the interstitial tissue contained leucocytes, hæmocytes and proliferating cells ; at a later period the muscular tissue presented a paler appearance and was even softer than at first, and microscopically the fibres were granular and showed dissolution into their component cells ; the interstitial tissue might show much cellular invasion, or, on the other hand, reveal some newly-formed fibrous elements. The more chronic forms of myocarditis resulted in some pallor in the colour of the heart, with hardness, and the microscope showed atrophy of the fibres and increased interstitial tissue : the muscle cells were finely granular or even distinctly fatty.

Endocarditis.—Deposition upon the affected surface of fibrin, corpuscles and platelets ; proliferation of the cells of the subendothelial layer ; leucocytes pass from the neighbouring blood-vessels into the affected tissues as well as into the thrombus. There was considerable difference in degree between such changes in the venous and arterial valves of the heart : in the former the cellular infiltration led to disintegration and abscess and ulceration : in the latter, the newly-formed tissues became the seat of a formation of new blood vessels, and their ultimate result was a conversion into granular tissue—the final result was simple fibrous tissue, which might, at length, show fatty or calcareous changes.

V. RHEUMATISM IN CHILDHOOD.

The wider and almost certainly more accurate conception of rheumatism as a general disease, probably of infective origin, was based chiefly on its manifestations in childhood : in a child the articular phenomena became a matter of merely secondary importance, and one often saw cases of undoubted rheumatism in childhood in which joint phenomena were seemingly entirely absent. These symptoms were so slight in children that comparatively few cases in which they occurred came under medical observation, until the presence of severe cardiac affection or the more obtrusive phenomena of chorea induced the parents to seek medical advice. Hence statistics

of rheumatism in childhood, to convey any accuracy as to its frequency, should include not only heart affections, but also cases of chorea in which there had been concurrent or previous articular rheumatism. This was amply demonstrated by the author in figures. Further evidence was, however, necessary, (although it was probable that a considerable number of cases of chorea in children, without other manifestations of rheumatism, ought to be included in the statistics,) if the widespread influence of rheumatism in childhood was to be fully realized. During early childhood rheumatism was much less frequent, and in infancy it was almost unknown. The practical importance of recognizing the significance of slight pains in the limbs in children—"growing pains"—could hardly be overrated : they might be the earliest indication of rheumatic taint, and as such should always serve as a danger signal, indicating the necessity of a careful watch being kept over the heart. The frequency of affection of the hip-joint in the rheumatism of childhood was remarkable, and might easily suggest commencing tuberculous disease. Other symptoms were "pain at the back of the knee," with perhaps no objective evidence of rheumatism in the knee-joint, and frequently stiff neck. The frequency of cardiac affections was one of the most characteristic features of rheumatism in childhood, and in addition to the heart affections of rheumatism in adults, cardiac dilatation often occurred, and in many cases it was the earliest indication of heart affection. Wasting was also a more noticeable feature in children than in adults, and "rheumatic nodules" were almost conclusive evidence of rheumatism in children : they have been known to occur in chorea without other clinical evidence of rheumatism—a point which was worthy of note in considering the relation of chorea to rheumatism : their presence made prognosis graver, and should always arouse a watchful suspicion over the heart. Tonsillitis was also a frequent symptom, but "cutaneous phenomena" were less frequent than in adults. "Cerebral rheumatism" or "rheumatic hyperpyrexia" was almost unknown in childhood. The author also attached importance to some minor symptoms, such as "pain in the stomach," due probably to a catarrhal condition in some way dependent on the rheumatism : pain in the side, usually in the lower part of one axilla and due probably to rheumatism affecting the intercostal muscles : headache, more especially in association with chorea. Further, the rheumatic child was *par excellence* the nervous child, being frequently afflicted with night terrors, somnambulism, restlessness at night and habit spasm. Lienteric diarrhoea was also not infrequent and was probably neurotic. Lastly, the writer calls attention, so far as his own clinical experience indicated, to the frequency of association of red hair with rheumatism and rheumatic heredity : it was possibly only an index of some fine peculiarity, perhaps in the chemistry of metabolism, which produced a soil favourable to rheumatic infection.

VI. THE TREATMENT OF RHEUMATIC FEVER.

Of the methods of treatment by drugs, at the present time, there were especially two, which were employed either separately or conjointly—one was the treatment with salicyl compounds, and the other the treatment

with alkalis. Salicylates and salicin, if administered in sufficient quantities, rapidly relieved the pain and reduced the temperature, and thus removed conditions which exerted a depressing effect, and therefore tended to disturb the heart. There were three views as to the mode of action of these compounds: (1) That they act as antiseptics and destroyed the alleged specific micro-organism of the disease. (2) That they exert an antitoxic action; and (3) That they act as a nerve sedative. Salicin, though not so effective, was of decided use in those cases in which the salicylates are not tolerated. It was to be noted that salicylates were irritant to the kidneys, and in case of any damage to these organs, should be carefully administered or salicin substituted. It had been said that relapses had become more frequent since the introduction of salicylates. If so, this was probably due to two causes: (1) To the improper employment of the drug, in that its administration was so frequently discontinued at too early a stage; and (2) To the patient being allowed to get up and move about too soon. It was said that heart complications were less frequent among those patients treated with alkalis, ascribed to the influence of those substances in preventing the coagulation of fibrin: hence the frequent conjoint employment of a salicylate with an alkali, the salicylate acting by diminishing the fever and the arthritic pain, and the alkali by averting or diminishing the tendency to endocarditis.

General Treatment.—Absolute rest; warm clothing; no cotton materials; milk diet with 15 grains of salt to each half pint, and later soups, especially vegetable; avoidance of stimulating food; plenty of liquid; a daily thorough evacuation of the bowels: with convalescence, patient to be put gradually on a fuller and more liberal diet.

Drug Treatment.—A dose of calomel followed by a saline purge; 20 grains of sodium salicylate with 30 grains potassium bicarbonate every two hours until pain is relieved; then every four hours till temperature falls to normal; then 15 grains of salicylate and 20 grains of bicarbonate every four hours until all joint symptoms had disappeared, and then three or four times a day until a fortnight had elapsed from the complete disappearance of joint symptoms. The heart should be carefully examined each day, and brandy given if the pulse became irregular or the heart showed signs of failure. In the case of children, salicin and alkalis should be employed and not sodium salicylate.

Treatment of Joints.—If pain remain after 24 to 36 hours, small blisters above and on either side of joint, or tincture of iodine painted over and around each joint, which is then enveloped in a hot linseed poultice and surrounded with cotton wool and a flannel bandage and kept so 24 hours, or the more recent method of applying a piece of lint saturated with about a teaspoonful of salicylate of methyl, and shutting this off from the air with gutta-percha tissue, or by the application of chloroform liniment.

Further Treatment.—For general pain, Dover's powder, phenacetin and antipyrin were useful. The treatment should be continued for some time after the tongue had become clean and the urine normal, and then the salicy-

lates very gradually left off to avoid relapse: absolute rest in bed for eight weeks if heart was involved, and otherwise for six weeks. During convalescence diaphoretics, quinine and, if borne, iron were needful. Only a very gradual relaxation of rest should be allowed.

Prevention of Endocarditis.—One of the drawbacks to the use of salicylates had been, and was still, the facility with which they relieved pain in the joints, so that the patient was tempted to that activity which might prove disastrous to the heart. To prevent this, absolute rest was essential, with small blisters (about the size of a florin) between the clavicle and the nipple over the first, second, third and fourth dorsal intercostal nerves, on the right or left sides, applied one at a time and repeated at different times, each one being followed by a small poultice to keep up a gentle stimulation of the nerves: Caton recommended 8 to 10 grains sodium or potassium iodide thrice daily, with the hope of causing absorption of inflammatory products on the valves, prior to their organisation. In children with "growing pains," rest should be enforced, for these pains were practically always rheumatic pains.

Treatment of the Heart.—In rheumatic carditis with dilatation and failing cardiac power, digitalis seemed to be of little avail: hypodermic injections of strychnine, and the internal administration of ammonium carbonate, constituted the best drug treatment under such conditions. Opium was of immense value in the early stages of rheumatic endocarditis, myocarditis and pericarditis, producing partial rest of the heart, by diminishing the rapidity of the pulse, and generally quieting the patient. Pericarditis of rheumatic origin generally ended favourably. The best initial treatment was to apply from 8 to 12 leeches over the region of the heart, and then the ice-bag.

Treatment of Hyperpyrexia.—Immerse the patient in a cold bath (65°F), and as the temperature of the water is raised by the heat from the patient, add ice: or use the ice pack or rub the body all over with ice, sponging the head with cold water or applying the ice-bag: if shivering occur remove patient from bath or pack: the bath may be repeated several times and stimulants given to combat collapse. This treatment was to be employed even though the patient was moribund.

Preventive Treatment.—Short occasional courses of sodium salicylate, which benefited by being a valuable stimulant of hepatic metabolism, and it appeared probable that a sluggish condition of the liver was a not uncommon precursor of many forms of rheumatism: the diet should be largely vegetarian, and general hygienic principles should be attended to. In children, if statistics eventually proved that the removal of enlarged tonsils had any influence on the prevention of rheumatic fever, their early removal with the removal of adenoid growths was obviously desirable for that reason alone.

SURGERY OF THE LIVER, GALL-BLADDER AND BILIARY PASSAGES.

WE endeavour to give a review of an interesting paper on the surgery of the liver, gall-bladder and biliary passages contributed to the columns of *The Practitioner* by Dr. JAMES SWAIN, M.A., M.D., (Lond.), F.R.C.S., Eng.,

Professor of Surgery at University College, Bristol, and Assistant Surgeon to the Bristol Royal Infirmary. It was pointed out how the life-saving effects of modern operative treatment had been markedly emphasized in cases of traumatic lesions of the liver, gall-bladder and bile ducts—injuries which formerly were frequently fatal. These injuries produced marked shock and collapse, pain in the hepatic region radiating to the scapula, enlargement of the liver, dulness and local tenderness. After 24 hours jaundice might develop, bile be found in the urine, and, in injuries of the common duct, the stools be clay coloured. There would be signs, unless the patient died of shock, of an effusion of blood or bile in the general peritoneal cavity, terminating ultimately in peritonitis if the patient lived long enough. The success of treatment depended on the time elapsed after the receipt of injury, and efforts should be directed towards arriving at a conclusion as to whether the injury was one demanding operation or not. In all cases attended by severe shock, which persisted or tended to increase, and in cases with symptoms of internal hæmorrhage, no time should be lost before opening the abdomen to ascertain the nature and extent of the injury, and then treat this on ordinary surgical principles. The onset of peritonitis did not preclude operation, but every effort should be made to adopt the necessary treatment before its supervention.

Hepatic Abscess.—In dealing with hepatic abscess, the writer indicates the difficulty of diagnosis, especially in the early stages. The abscess might be single or multiple. The history would assist in most cases, e.g. residence in the tropics, dysentery or malaria, or injury or diseases involving the portal circulation. The patient is emaciated and sallow, rarely jaundiced, with single abscess: feeling of weight and pain over liver: liver usually enlarged in upward direction: dulness often reaching as high as the angle of the scapula: bulging possible in later stages: skin inflamed and fluctuation may even be present: temperature erratic: rigors and vomiting may occur. In multiple abscesses the enlargement of the liver was general, and seldom equalled the enlargement in single abscesses: jaundice was also more common. In multiple abscesses surgical interference was rarely justifiable: in the single forms the patient's best chance of recovery consisted in early evacuation of the pus. To facilitate diagnosis the aspirator might be used, the patient being anaesthetised, so that if operation be necessary it may be carried out at once sitting. The incision for hepatotomy was best made in the abdominal parietes near the costal margin for abscess in the left lobe, or in the lower part of the right lobe: for abscess of the upper part of the right lobe drain abscess across the pleural cavity, after excision of a portion of the eighth, ninth or tenth rib. Irrigation commenced a few days after operation, was much safer than ouretting and equally efficient. Should the abscess burst into the peritoneum, pleura, etc., no time should be lost in evacuating the abscess and treating the complication on ordinary principles: should the rupture have taken place into the lung, operation might not be required, as many such cases terminated favourably.

Hydatids of the Liver.—This occurred as a slowly growing enlargement, unaccompanied by pain, fever or

other constitutional disturbance: jaundice was rarely met with: it might be confused with simple cyst. Though echinococcus fluid was pathognomonic, the use of the aspirator for diagnosis should be eschewed, except in cases where the actual location was difficult. If operation was required, it was better to make an exact diagnosis after the abdomen had been opened. The best treatment was hepatotomy as in hepatic abscess. Whenever possible, the endocyst should be drawn out at once through the wound, the ectocyst and surrounding liver tissue sutured to the parietal peritoneum and a good-sized drain inserted into the cyst cavity.

Neoplasms of the Liver.—The removal of hepatic tumours was one of the most recent developments of the surgery of this region. Removal should be attempted only in the case of single tumours. Diagnosis was difficult: an exploratory incision was justifiable. Permanent recovery might ensue both in benign and primary malignant growths, but in the latter there was a tendency to recurrence.

Hepatoptosis.—"Prolapse of the liver" or "wandering liver" was an uncommon affection, most often found in women who had borne many children. The operation of hepatopaxy or fixation of the liver to the abdominal wall results in complete relief, but should be reserved for such cases as fail to respond to simple mechanical measures.

Cirrhosis of the Liver.—The unfavourable outlook of most cases of cirrhosis of the liver had led to an operation by which the adjacent surfaces of the liver and diaphragm were made to adhere, and thus improve the blood supply of the affected organ. If done at all, this should be done quite early before degeneration had advanced.

Cholelithiasis.—Most of the operations on the gall-bladder and its ducts were performed for conditions produced by the presence of gall-stones: inflammation, suppuration, gangrene, perforation and biliary fistulae. The symptoms of gall-stones were well known, but it was to be remembered that they might occur with or without enlargement of the gall-bladder, and were not necessarily accompanied by jaundice. OSLEN regarded the following symptoms as indicative of the presence of gall-stones in the common duct: (1) Ague-like paroxysms of chill fever and sweating: (2) Jaundice of varying intensity, which persisted for months or even years and deepened with each paroxysm: (3) At the time of the paroxysms pains in the region of the liver, with gastric disturbance. In frequently recurring attacks of hepatic colic without jaundice, and with or without enlargement of the gall-bladder, and in all cases where there were persistent symptoms, an operation should be performed, and in every case of dropsy of the gall-bladder with the occurrence of peritonitis in the neighbourhood and the presence of painful adhesions, the use of the aspirator followed by a probe was dangerous. The abdomen should be opened and the surgeon then guided by the existing conditions. Cholecystotomy (incision into the gall-bladder after division of the parietes) was the best mode, and the indications for its adoption were thus expressed by MAYO ROBSON:—(1) In all cases where

the gall-bladder is sufficiently large to permit of drainage after gall-stones have been removed from the gall-bladder or ducts. (2) In cases where there are gall-stones in the ducts, but the patient is too ill to bear a prolonged operation, the gall-stones being left for tractant by some solvent action. (3) In empyema of the gall-bladder where that viscous is not too much disorganized to be permitted to remain. (4) In certain cases of chronic catarrh of the gall-bladder or bile ducts. (5) In infective and in suppurative cholangitis. (6) In obstruction of the ducts due to hydatid disease. (7) In dropsy of the gall-bladder. (8) In idiopathic rupture or laceration, or gun-shot injury of the gall-bladder or ducts. (9) In cases of choledochotomy, in order to avoid tension in the sutured ducts. (10) In certain cases of obstructive jaundice dependent on malignant tumour, which is occluding the ducts: in these cases the increased danger must be borne in mind. (11) In some cases of phlegmonous cholecystitis or gangrene, where the patient was too ill to bear cholecystectomy.

Inflammatory affections of the gall-bladder and bile ducts.—This may arise in association with acute specific fevers or hydatid or malignant disease as well as from gall-stones. The suppurative and infective inflammations were most often due to the bacillus coli communis or the bacillus typhosus, pneumococcus or staphylococcus. The suppurative form was serious, and might result in hepatic abscess, perforation of the ducts, etc. Cholecystectomy held out some hope if performed early. Ulceration of the gall-bladder and ducts might ensue and end in perforation; or stricture may occur and consequent distension of the gall-bladder. The treatment of perforation was the same as that of rupture of the gall-bladder or ducts. In stricture of the cystic duct the gall-bladder should be removed (cholecystectomy), and in stricture of the common duct a fistulous opening should be established between the gall-bladder and the intestine (cholecystenterostomy). A biliary fistula must be treated by clearing the ducts or, if this was impossible, by the performance of cholecystenterostomy.

Tumours of the gall-bladder and bile ducts.—New growths were not common, but both in the gall-bladder and bile ducts malignant neoplasms were more often found than benign ones. Papillomata or fibromata might give rise to distension. Carcinoma was more common than sarcoma—a hard, tender and painful tumour in the region of the gall-bladder, accompanied by jaundice and cachexia. Tumours of the bile ducts gave rise to symptoms of obstruction. Whenever possible, the growth should be removed, and failing this a cholecystenterostomy performed; but where jaundice had existed for a long time, there was great risk of uncontrollable hæmorrhage.

In all the above diseases there had always been too great a tendency to postpone surgical treatment, or even to avoid it. This was to be deplored; for the possible consequences of delay—such as suppurative cholecystitis and cholangitis, the bursting of a hepatic abscess or advanced cholæmia—were well known, and operations which should have been performed early enough to prevent such conditions should not be credited with results which, in the later stages of disease, were sometimes produced by an injudicious procrastination. The association of gall-stones with cancer, which was so frequent that the relationship was more likely causal than casual, afforded another indication for an early resort to surgical aid. Exploratory incisions, owing to the difficulty in diagnosis, should be utilized much more frequently than hitherto.

COMMENTS AND NEWS.

PRESENT STATUS OF HYDROPHOBIA.

THE *Journal American Medical Association* says:—Modern scientific medicine is under heavy obligation to LOUIS PASTEUR, not only for many original and illuminating observations, but also for the healthful impetus he gave to careful, painstaking investigation; and in this material age, not the least tribute that can be paid his work is the acknowledgment of its intensely practical value. His studies in fermentation and in parasitology opened new avenues of thought and activity, and have led to results far exceeding the most sanguine expectations of his time. His method of treating hydrophobia was long regarded with doubt and suspicion, but the lapse of time has only tended to place it on a firmer basis, and secure for it the recognition it deserves. It was, in some respects, next to vaccination for small-pox, the first of the biologic methods of treatment. The evolution of our knowledge concerning hydrophobia is traced in a most interesting manner by BABES in a recent communication. As he points out, it is really only within the last twenty-five years that correct notions on this subject have prevailed, and it is now generally agreed that hydrophobia, or rabies, is a specific infectious disease transmitted between animals and man, although the hypothetical micro-organism has not yet been isolated. The medium of communication is usually the saliva of a rabid animal, either through a bite-wound or other solution in continuity of structure, and the central nervous system is the principal seat of the morbid process. Inasmuch as dogs are the most common agents for the transmission of the disease, the use of muzzles and the impounding of these animals serve to diminish greatly its prevalence. In the nervous system nuclear hyperplasia of the adventitia and miliary accumulations in the vicinity of the vessels have been found, and more recently attention has been called to the presence of marked inflammation of the gray matter, especially of the oblongata and the spinal cord, the infiltration assuming a peculiar nodular form. The period of incubation of hydrophobia is long, and considerable time elapses before the effect of protective inoculations becomes manifest, but it has been found that cauterization of the wound of infection prolongs the period of incubation, and thus may prove a useful adjunct in treatment. However introduced, the virus of rabies reaches the central nervous system. A stage of premonitory fever has been observed preceding the outbreak of the actual symptoms, and these also may be attended with fever. It is suggested that the antirabic inoculation results in a neutralization of the virus before this reaches the nervous system, while, when once the nervous system is actually involved, the outlook is much less favourable. It seems almost certain that rabies is dependent on the action of a micro-organism, with the identification of which it can be hoped that an antitoxin will be secured capable, not alone, of conferring protection against the disease, but also of effecting a cure after symptoms have developed.

THE DOCTOR'S MISSION.

THE *Medical Brief* says:—Theory plays a prominent part in the growth of every science. This is peculiarly true of medicine, because of its inexact nature. Moreover, abstract thinking has a fascination much greater than the applied science. In the practice of medicine, there is the continual struggle with narrow intelligence, stubborn wills,

misunderstanding, censure, neglect, and a thousand inescapable unpleasantnesses.

But medicine can never make actual progress except *clinically*. All theories, beliefs, doctrines, etc., which cannot be demonstrated at the bedside, will perish. It is in the sick-room that ideas quicken. Here alone they are improved, modified, perfected into scientific practices and methods.

Hence the doctor must bear in mind constantly the great practical fact that his real mission—the genuine message of medicine to the world—is to cure people of their ills, to relieve them of pain and suffering. It is only in this way that the doctor can succeed financially or professionally, or that medicine can make any real advancement.

To love and follow medicine for its own sake solely, or to make money and reputation cheaply by coining the inventive powers of the imagination without warrant or authority, as KEOH and BERING have done, leads to perversions and decadence. Such a doctor becomes unbalanced, irresponsible, dangerous.

Let us keep practical. Retain our humanity. Be of some real use. Do some actual good. Get information which we can apply from every source. Test it with impartial, if critical, intelligence. Accept nothing as final on mere grounds of authority. The common sense and professional instinct of the man in practice is worth all the vaporings of closet scientists. Men who spend their lives shut away from life and Nature are untrustworthy.

Study medicines thoroughly and fully. Look up their indications systematically. Get good preparations, proprietary where you can, and have always the same ones. Then carry on a line of experimental work, not on rabbits and guinea-pigs with nasty poisons, but on sick people with clean and wholesome drugs, on lines laid down by experience.

Then look into the isms and therapeutic cults that spring up from time to time. All those that live contain some truth. You will glean suggestions from them that, added to your other therapeutic resources, make you the most "fit to survive" in practice.

The physician should have the broadest culture of any man in the land, but it should be practical, ready to be turned to account at any time.

REFORM OF ARMY MEDICAL ADMINISTRATION.

THE *British Medical Journal* says:—The statement with regard to the medical service of the army, made by Mr. BRODRICK in the course of his speech on Wednesday evening, will be read with somewhat mixed feelings. He paid a handsome tribute to the devotion to duty of the great mass of medical officers of the Royal Army Medical Corps, but at the same time he expressed the opinion that inquiries which had been made showed that there was a certain amount of professional jealousy and indisposition to avail themselves of outside assistance in an emergency, and perhaps too much red tape. He also said that he thought that the war had shown that the military titles had not altogether had the best effect. He expressed the opinion that a satisfactory system could only be brought about by a drastic reform of the Army Medical Service. How this drastic reform is to be carried out Mr. BRODRICK did not very clearly explain, but we gather that it is his intention to appoint a Commission, which shall include the heads of the medical profession. We hope that this may be interpreted to mean that the proposal to appoint a Departmental Committee to inquire into the organisation of the Corps has been abandoned. It would be disastrous to hand

over the matter to any committee which would be swayed by those military prejudices which have already operated so unfortunately by rendering the medical service of the army unpopular in all the medical schools. We would point out that in selecting the medical members of such a Commission, it should be borne in mind that a considerable number of candidates for commissions in the public services have always come from Scotland and Ireland, hence representatives of the profession in these two countries ought to find a place upon the Commission when appointed. We are glad to see that the new War Minister recognises the need for study-leave for medical officers, that he is prepared to go into the whole question without prejudice, and that he is ready to take the responsibility of recommending the necessary reforms. The two influences which have combined to bring about the present unpopularity of the medical service of the army are the obsolete prejudices of a certain class of military officers and administrators and the economical zeal of the House of Commons. It is well that Mr. BRODRICK had the courage to speak out on this point, and to tell the House of Commons that it was itself responsible for the defects which now exist owing to the penny-wise-and-pound-foolish policy which it was induced to follow some fourteen years ago.

ABUSE OF MEDICAL CHARITY.

MUCH has been said in recent years about the abuse of medical charity. Dr. OSBORN deprecates lavish and indiscriminate charity, but he adds:—

"The question arises, Who is a deserving person? We are all agreed upon the poor man, but how about the relatively poor, the clerk or mechanic with a large family? Many conditions arise in which he is a worthy recipient of hospital aid. A daughter with typhoid fever, or a boy with hip-joint disease, is much better off in the wards of a hospital than at home, and it is a good deal better for the profession that the father of the family should pay the hospital two or three dollars a week for the care of his child than that he should take food from the mouths of his little ones to pay a doctor's bill, which at the best could not be in any degree adequate to the services rendered. Take the case, too, which need special services—the obscure skin diseases, obstinate affections of the nervous system, cases requiring delicate operations; a majority of these have already paid a general practitioner a fair fee before applying to hospital. Instead of saying that our charities are abused by such people, I maintain that they are not used enough, and are not sufficiently taken advantage of by the general practitioners. The golden rule in the practice of medicine makes the interest of the patient the first consideration, and so soon as the physician is puzzled, or finds the case to be obscure or not progressing well, instead of straining a family in straitened circumstances—distraining, I would call it—by a consultant's fee, he should send the patient to a hospital. If the patient can pay something for the accommodation, well and good; if not, well and good; to help such is the truest form of charity. I am not speaking, remember, of the absolutely poor, but of the relatively poor and the imprudent, upon whom sickness comes as a terrible trial. In relieving these people of their obligations to the profession by placing them in more skilful hands, or where the nursing is better, the physician only does his duty, though it may be at a pecuniary loss."

It takes courage to set forth such views, and it requires extraordinary conscientiousness in the struggling practitioner to conform to them. It must be admitted, nevertheless, that they are well founded. The pity is that some means cannot be devised of maintaining one's income while one carries out this altruistic course.

NEW RESIDENTIAL ACCOMMODATION IN CALCUTTA.

A BOON is likely to be shortly conferred upon Calcutta by the erection in Old Court House Street, to the south of the Great Eastern Hotel, of a large block of residential flats. The building is to be some seven storeys high, and will be fitted with lifts and all the modern conveniences which have made the New York system such an immense success. Each suite will be complete in itself and will be rented separately, thus meeting what has hitherto been the greatly felt want of healthy, cool, and conveniently situated residences for Anglo-Indians with moderate incomes.

MEDICAL APPOINTMENTS TO THE KING.

A NOTICE issued by the Lord Chamberlain's Office, dated February 26th, announces that the King has been pleased to appoint Joseph. Lord Lister, to be Surgeon-General in Ordinary; Sir William MacCormac, Bart., K.C.V.O., F.R.C.S., and Sir Thomas Smith, Bart., F.R.C.S., to be Honorary Surgeons.

The Admiralty announces, under date February 25th, the following appointments:—

To be Honorary Physicians to the King.—Dugal McEwan, M.D.; Sir James J. L. Dennet, K.C.B., M.D., Inspector-General of Hospitals and Fleets; Sir John Watt Reid, K.C.B., M.D., LL.D., Director-General of the Medical Department of the Navy (retired); Adam B. Messer, M.D., Inspector-General of Hospitals and Fleets; Henry C. Woods, C.V.O., M.D., Inspector-General of Hospitals and Fleets (extra).

To be Honorary Surgeons to the King.—Sir James Jenkins, K.C.B., M.D., Inspector-General of Hospitals and Fleets; Timotheus J. Haran, Inspector-General of Hospitals and Fleets; Sir James N. Dick, K.C.B., Director-General of the Medical Department of the Navy (retired); William H. Lloyd, M.D., Inspector-General of Hospitals and Fleets; Alfred G. Delmore, M.V.O., M.D., Deputy Inspector-General of Hospitals and Fleets (extra).

MALARIA WITHOUT MOSQUITOES.

ACCORDING to the International Medical Magazine for December, TOMASCHIEWITZ opposes the latest theory about the transmission of malaria by mosquitoes by the following facts:—

In Africa there are malarial districts in which no mosquitoes are found. In Northern and Central Russia mosquitoes are absent for 9 months in the year, and yet malaria is prevalent during the entire year. In the Russian army malaria was especially prevalent in the fall of 1897. Among the soldiers stationed in Vladimir there occurred 838 cases of malaria during 1897, 1898 and 1899. Of these, 72 cases occurred in January, 72 in February, 70 in March, 88 in April, 104 in May, 74 in June, 70 in July, 51 in August, 57 in September, 47 in October; 53 in November, and 98 in December.

SHORT ITEMS AND PERSONALITIES.

The results of a special enquiry ordered by the Commissioner of Lahore, during his recent visit to the plague area of Gurdaspur on account of the unfounded statements regarding the effects of inoculation made by evil-disposed persons, furnish satisfactory evidence of the value of inoculation as a protection against plague. The figures compiled show that the death-rate among the uninoculated was seven times greater than amongst the inoculated.

Mr. Henry J. Wilson, M.P., has given notice of his intention to call attention in the House of Commons to the Indo-Chinese opium trade; and to move that, in the revision of treaty relations between this country and China, it is desirable to offer to the Chinese Government complete freedom to take such measures, whether by increased taxation or otherwise, as it may judge necessary, for the suppression of the opium traffic.

Her Majesty Queen Alexandra has conveyed to Lady Curzon her desire to be patron of the National Association for affording Female Medical Aid to the Women of India in the same manner as the late Queen-Emress. Her Majesty has requested that her wishes may be made known in India, and has asked Lady Curzon to keep her informed of the progress made by the Association.

Lieutenant-Colonel D. P. MacDonald, I.M.S., Medical Storekeeper, Bengal Command, proceeds home on twenty-one months' leave.

Major C. B. Bartlett, B. A. M. C., in medical charge of the Station Hospital at Darjeeling, proceeds to Muttra and assumes medical charge of the Station Hospital.

Mr. K. M. Parfby, L.M.S., Bombay, has passed the examination in Anatomy and Physiology for the M.B.C.S. and L.R.C.P., Lond.

A. Nell, I.M.S., Ceylon, has passed the examination in Anatomy for the M.B.C.S. and L.R.C.P., Lond.

Mr. P. N. Lakshmanan, L.R.C.P., Lond., M.B.C.S., Eng., M.B., O.M., Madras, has passed the D.P.H. of the Royal College of Surgeons and Royal College of Physicians of London.

General Spencer, I.M.S., has arrived in Calcutta and takes over charge from General Harvey, who is proceeding on furlough.

WANTED—A POST BY AN ASSISTANT SURGEON willing to serve in a Native State in the Railways or any Municipality, &c. Apply V., C/o The Manager.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta from the 2nd to the 23rd February 1901.

EXISTING MUNICIPAL LIMITS.

Year.	Week ending.	CHOLERA.		PLAGUE.				Small-pox.	Fever.	Bowel complaints.	All other diseases.	Total.	Total population according to the Census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic.	Epidemic.	Sporadic.	Deaths.	Seizures.	Deaths.							
1901	2nd Feb. ...	13	..	59	54	..	..	123	152	112	198	652	49.9	..
	9th " ..	20	..	..	..	131	122	112	148	89	232	723	55.3	..
	16th " ..	26	..	..	..	264	233	87	167	83	222	818	681,550	62.6
	23rd " ..	18	..	..	..	322	287	156	140	77	259	937	71.7	..

J. N. COOK, D.P.H., Health Officer of Calcutta.

Current Medical Literature.

MEDICINE.

Rest—A Neglected Factor in the Treatment of Gastro-Intestinal Disorders.

DR. C. D. SPIVAK in this paper, which was read before the Section on Practice of Medicine at the last meeting of the American Medical Association, reasons that rest is quite as useful in the treatment of gastro-intestinal diseases or disturbances as in surgical or nervous affections, and yet rarely employed. He describes three methods by which rest can be given the affected digestive organs: (1) Rest in bed. (2) Diet. (3) Hot poultices. These are thus explained: 1. *Rest in bed.*—In severe cases I follow the method of WEBB-MITCHELL to the letter: 1. Absolute rest in bed. Sitting is not allowed under any circumstances. The bowels are regulated; the bed-pan is used. 2. Sponging the whole body every morning. 3. Isolation. 4. Massage. I have not had yet a case that required electricity. In milder cases I use my judgment as to isolation and massage. (2) *Diet.*—In many severe cases of gastro-intestinal disorders the best bill of fare is abstinence. One, two or even three days' fasting will do no harm in cases of ulcer, dyspepsia and diarrhoea of all kinds and varieties. Nutritive enemata can be employed in cases where a longer period of fasting is necessary. When food by the mouth is allowed, it must be given in small quantities, no matter whether liquid or solid, and at regular intervals. Every case must be individualized as to the quality and quantity of food. (3) *Poultices.*—I shall not attempt to formulate a theory as to the action of poultices. Whether the poultices hasten the expulsion of food from the stomach, as has been shown experimentally by FLEISCHER, or they cause the acceleration of the circulation of the blood in the abdominal viscera, is not yet definitely settled. I am certain, however, of one thing, and that is that, as they aid the peristaltic movements of the stomach, they make the patient feel comfortable and keep him warm and at rest. *The poultices take the place of splints.* In severe cases the poultices are applied constantly during the day for one and two weeks; in milder cases from four to eight hours daily. SPIVAK, after reporting nine cases in which this method produced prompt curative results, reaches the following conclusions as to the indications for it: 1. It is indicated in all dyspepsias, the underlying cause of which is a deranged nervous system. 2. It is indicated in all cases where abdominal pain is present. 3. In all cases of acute and chronic diarrhoea. 4. In hæmorrhage from the stomach or intestines. 5. In all cases of movable or floating kidney. 6. In all tubercular cases suffering from disturbed digestion, be it stomach or intestine, and especially those that have a vacillating temperature record, and as there are but few cases of tuberculosis that do not suffer from some form of gastro-intestinal disorders, the rest cure is indicated in 50 per cent. of all cases of tuberculosis. Not only are they relieved from their annoying digestive symptoms, but their general condition markedly improves. 7. I have yet to learn of a disease of gastro-intestinal tract, where the rest treatment is contradicted.—BOARDMAN BREED.—*Int. Med. Mag.*

Hereditary Tuberculosis.

M. CHARRIN (*Le Prog. Méd.; Pacif. Méd.*), in speaking of the two conditions of hereditary tuberculosis—direct heredity and indirect heredity—made the following statements:

The most recent researches into this field of pathology show that heredity of tuberculosis is generally indirect—*l'hérédité de terrain*. In examinations of infants born of tuberculous mothers, the following conditions are found:—

1. The weight of these infants at birth is inferior to that of infants born of healthy mothers.
2. The curve of their growth and development is very irregular.
3. The toxicity of their urine is more considerable.
4. The analysis of their feces shows diminished assimilation of food.
5. Their power of thermogenesis is from four to six calories per hour only, while that of healthy infants is from eight to nine calories per hour.

Moreover, cellular lesions of the liver and of the kidneys have been found at autopsy of such of these cases as have died from other causes. These visceral lesions predispose to infection, and in them, and in the conditions given above, M. CHARRIN finds the explanation of predisposition.

Ocular Evidences of Hysteria.

DR. C. A. WOOD'S (*Amer. Jour. Med. Sc.*) conclusions are:—

1. Most cases of hysteria present well-marked, easily-detected eye-signs and symptoms.
2. A few ocular symptoms, such as reversal of the relation of the color-fields and the field for white, the tonic form of blepharo-spasm, spasm of accommodation and convergence, and pseudo-paralytic ptosis, may be regarded as pathognomonic of hysteria.
3. Defects of vision (in the absence of refractive errors, accommodative anomalies, and fundus lesions) are, generally speaking, hysterical, if accompanied by photophobia and any form of blepharo-spasm.
4. No examination of a patient for hysteria should be regarded as complete without considering the condition of his ocular apparatus.
5. Where there is no conclusive external evidence of the neurosis present, the perimeter should be carefully used, the range of accommodation should be noted, and the ophthalmoscope employed.
6. It should always be remembered that ocular hysteria is common in children and men.
7. Organic disease (traumatism especially) of the eye may accompany purely functional disturbances of that organ.

Reaction of the Blood of a Diabetic to Methylene Blue.

The *Gaz. des Hôp.*, quoting from an article of WILLIAMSON'S (*Pharm. Central.*), says that diabetic blood will decolorize an alkaline solution of methylene blue, the latter taking on a yellowish color when heated. The solution will not be changed if the blood from a person with any other malady be added to it. Preparation of the solution:

Blood	1
Water	2
Methylene blue (1:6000)	50

To this one add.

Caustic potash (6% sol.)	2
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Boil three or four minutes on a sand-bath. The solution is then ready for the test designated.

SURGERY.

Treatment of Sprains and of some Fractures.

A. S. TUBBY, F.R.C.S. (*Lancet*) says:—A sprain may be defined as a momentary disturbance of the normal relation that exists between opposing joint surfaces. Its degrees are very variable. In the mildest form there may be only slight effusion of blood; in the severest, a small portion of bone may be torn away by the ligaments (sprain-fracture). In the diagnosis of this latter condition, the employment of the Röntgen rays is invaluable. There are two modes of treating sprains: The method of rapid forcible movement immediately after the injury, and the method of rest. The former, that of mobility from the first, is one which can only be employed in very slight cases, and even then the symptoms often become more pronounced, and permanent thickening of the joint remains. In the mode of treatment by rest, the application of heat, of properly applied pressure, splint and plaster-of-Paris fixation, friction, and the use of the constant current, can all be utilized. It is quite rational to apply cold during the first three or four hours after the accident; indeed, it is the best method. The amount of effusion can be further checked by the application of pressure and placing the joint in such a position that its potential cavity is lessened. For instance, the knee should be extended; the ankle placed at right angles. Pressure by bandages should be equally distributed by means of pads of cotton wool. When the second attack of pain ensues, the application of cold is of little value; heat should now be applied, as it not only relieves the pain, but promotes absorption on the part of the blood-vessels. The effused blood and lymph are in this way taken up and removed. After three or four days of rest, passive movements of the joint should be commenced. All movements must be made towards the injured ligaments. Where the swelling is considerable, properly applied friction is necessary for its reduction; even counter-irritation by means of blisters may be called for. As a rule, where this line of treatment is followed, a severe sprain will cease to give rise to trouble within two or three weeks, and the patient can go about with comfort.

Fracture about the Elbow-Joints.—The disastrous consequences which so often follow fractures in this region are due, in the author's opinion, to the arm being kept at a right angle with the forearm midway between pronation and supination. He advises that in all such injuries (except of the olecranon) the forearm should be forcibly extended, then supinated, then acutely flexed: i. e., with the ball of the thumb resting against the neck on the opposite side. A splint is not needed, and is, indeed, harmful. The arm should be secured by a sling passing around the neck and the wrist. At the end of three or four weeks the arm should be dropped a little.

Separation of the Lower Epiphysis of the Femur.—Reduction of the epiphysis and the maintenance of the reduction are sometimes extremely difficult, and in some cases the author has been compelled to open the joint and fix the epiphysis in place with a steel nickel-plated screw.

Results of Operations on Rectal Carcinoma.

DR. KROENLEIN (*Arch. of Clin. Surgery*), after reviewing the literature on this subject, concludes as follows:

1. Extirpation is the best method of treating cancer of the rectum.
2. About four-fifths of the cases of extirpation of the rectum for carcinoma recover from the operation and the wounds heal, while one-seventh of the cases recover permanently.
3. The functional results are the best when, in removing the diseased portion of the rectum, the sphincter and anus are left intact.
4. The total removal of the whole of the rectum greatly interferes with the functional result, but renders the proportion of cures greater.
5. The selection of the perineal or dorsal method of excision depends upon the character of the case. The sacral method is especially appropriate for cases in which the cancer is situated in that locality.

6. In operations for the removal of cancer of the rectum, it is to be remembered that the rules of plastic surgery are applicable here with the greatest of energy, hence the proper placing of sutures and the close adoption of flaps of mucous membrane.

Extravasations of Urine.

A PAPER by HAYDEN, of New York, appeared in the *Medical Record* of that city. The author gives brief reports of three cases of scrotal extravasation, extravasation into the corpus spongiosum, and general extravasation. All were due to stricture and all recovered. The ages of the patients were sixty-nine, forty-three, and thirty-seven respectively.

From a study of his cases, the author considers himself warranted in drawing the following conclusions in regard to the treatment of urinary extravasation:

- (1) The location of the stricture or strictures, and their immediate relief by internal urethrotomy, external urethrotomy, or a combination of both.
- (2) Thorough bladder drainage by means of a large perineal tube, passed through the external urethrotomy wound.
- (3) Free incisions into all areas of extravasation, with liberation of urine, gas, and gangrenous tissue, and their copious irrigation.
- (4) Thorough drainage and frequent irrigation of these incisions, with change of dressings, which should consist of moist saline gauze, or hot saline solution, rather than iodiform, bichloride or carbolic, on account of the possible toxic effects of the latter on a subject who is already in a more or less precarious condition.
- (5) Frequent urethral and bladder irrigations, together with the occasional passage of full-sized sounds, and internal medication to keep the urine in a normally acid condition.

A Series of Eleven Operations for Perforated Gastric Ulcer.

DR. G. H. HUME reports eleven cases of perforating gastric ulcer operated on by him, with six recoveries. In only one case was there any doubt before the operation of the occurrence of perforation. The past history of stomach trouble, the sudden and severe pain with collapse, the epigastric tenderness and rigidity, with soon a slight rise of temperature, are indications enough to justify exploration. Continuous vomiting is of evil import. In the cases that resulted in recovery, the interval between rupture and operation was from six to twenty-eight hours. In the instance where twenty-eight hours had elapsed, the stomach was absolutely empty at the time of rupture. In only one instance was the perforating ulcer found on the posterior wall of the stomach. In all cases the opening was closed by a double set of LEMBERT stitches, the edges not being excised. The treatment of the peritoneal cavity varied: sponging without flushing or drainage should be followed where there is only limited and local extravasation. But in one case, where the abdomen contained much gummy fluid, the thorough flushing and draining was thought to have brought about the patient's recovery.

Tuberculosis of the Testis.

R. BAUDET says:—Early castration has returned to favor and is justified on the following grounds: (1) It is the most speedy form of treatment for this local tuberculosis. (2) It is a rapid treatment, which avoids pulmonary and mesingeal complications. (3) It prevents the spread of tuberculosis to the genital tract of the opposite side. (4) It causes a recession of the concomitant vesiculo-prostatic lesions.—

OBSTETRICS AND GYNECOLOGY.***Simultaneous Tubal and Normal Pregnancy.***

STRAUS has written a valuable monograph on this important condition, including a case under his own care. No fewer than 32 instances of tubal pregnancy co-existing with intrauterine gestation appear in his tables. His own patient was 34, a 2-para; the right tube was involved, and its pregnancy had reached the twelfth week when SKAFFER operated, removing the right tube and ovary. Three weeks later a foetus of about the fourteenth week was expelled. Symptoms of inflammatory pelvic mischief followed, and the patient died suddenly of pulmonary embolism six weeks after the abortion. In STRAUS's tables the maternal mortality amounts to 14 in the 32, but 10 of the 14 were in cases dating from 1820 to as far off as 1879. In 13 cases both extrauterine and intrauterine pregnancies continued to term; in four both foetuses were living, and out of these four no fewer than two were cases where both foetuses were delivered alive, the one normally, the other by abdominal section, but one mother was lost out of these two cases. In three cases one pregnancy alone continued till term, in two it was the normal gestation, in one uterine abortion occurred at the sixth week, and the tubal pregnancy continued to term. In five cases the simultaneous pregnancies were diagnosed before uterine labour and any operation. In nine cases the diagnosis was made after spontaneous termination of the uterine pregnancy. In six cases it was not made at all, being discovered at a necropsy; in six it was detected during abdominal section, in two after abortion of the uterine pregnancy, in two at an abdominal section after abortion, in one after detachment of the placenta from the uterine cavity, whilst in one intrauterine pregnancy was not detected till two months after the tubal sac had been removed. This is the only case in which, after that operation, uterine pregnancy continued to term. The child was living and was reared.—*Brit. Med. Jour.*

Transverse Positions and Turning in Primiparae.

G. VOGEL (*Wünnch. Med. Woch.*) says that transverse positions of the fetus are very rarely met with in primiparae. Among the causes are numbered tumors, placenta previa, uterus bicornis, and scanty amniotic liquid. Among eighty-six cases of transverse position occurring at the Würzburg clinic, eight presented in primiparae. Five of the women were affected with uterus arcuatus, one with placenta previa, and six with a flattened pelvis. As regards treatment, VOGEL recommends early cephalic version by external manoeuvres, and if unsuccessful, combined cephalic version with perforation of the membranes. As a last resort he advises podalic version, and only in extreme cases podalic version, with the hand *in utero*, provided there be no impending rupture of the uterus.

Operative Treatment of Uterine Fibroids.

F. A. LOCKHART (*American Journal of Surgery and Gynecology*) says that a uterine fibroid should not be interfered with unless it is giving rise to serious symptoms, be they mental or physical, notwithstanding the statement of one gynecologist (GORDON of Portland) that he removes all fibroids which he meets with in practice, whether they are causing trouble or not.

Curetting is merely a palliative measure, as is also in many cases ligation of the uterine arteries.

Removal of the appendages ought to be merely a *dernier resort*, as it practically never cures and does not always even relieve.

The operation of selection should be either total hysterectomy or myomectomy.

After-results in Forty Consecutive Cases of Vaginal Hysterectomy Performed for Cancer of the Uterus.

DR. A. H. N. LEWIS says:—The conclusions that appear to follow from the consideration of the facts in this paper are: (1) That in a certain proportion of cases, patients suffering from cancer of the uterus may be relieved by operation for

periods of many years—in some cases for so long a time, seven years and upward, that there seems some probability that the relief may be permanent; (2) that the proportion of cases in which this result can be expected must remain very small so long as patients generally only seek advice at a late stage of the disease; and (3) that consequently the great desideratum is early diagnosis.

Improvement in this direction depends to some extent on the better appreciation, on the part of women themselves, of the early symptoms of the disease, and especially of the significance of bleeding after the menopause, or the bleeding occurring at an earlier time of life between the menstrual periods. Early diagnosis, of course, also depends partly on the profession. Especially important is the general recognition of the gravity of the symptom just mentioned. It is equally important also to bear in mind that patients suffering from cancer of the uterus may, and generally do for a relatively long period, look quite well. They may be well nourished, or not infrequently even excessively fat; and, as regards the aspect of the case, they may appear to be in perfect health.—*New York Med. Rec.*

Thyroid and Ovarian Extracts in Gynecologic Practice.

E. E. MONTGOMERY (*International Medical Magazine*) states that he has never seen the slightest influence in any way through the use of ovarian extract. Thyroid extract he has found specially valuable in the treatment of myxedema, obesity, and particularly in the treatment of some forms of sterility. That it has a marked influence upon the mucous membrane of the uterus is evident from its effect upon uterine hemorrhage. In cases of hemorrhage from non-malignant conditions near the climacteric, thyroid extract is especially efficacious. It also has an influence in arresting the growth and promoting the absorption of fibroid growths. The author was led to employ the drug in the treatment of sterility after having seen some cases in which women became pregnant after its use for the treatment of obesity. One patient lost 70 pounds under the use of the drug and immediately became pregnant. In another patient who had never menstruated, been married eight years, the surgeon found that she had an enlarged ovary, removed it and punctured a number of cysts in the other ovary. Following this operation she began to menstruate regularly. She was desirous to have children, and after menstruating for a year, she began the use of thyroid extract and became pregnant. She gave birth to a child at full term and is again pregnant.

Treatment of Infection Arising in the Uterus.

ABEL calls attention to the large number of cases of infection from the uterus, a number still large in spite of modern antiseptic methods. He describes the various clinical aspects of the subject, and then passes to the consideration of treatment. He is sceptical as to the value of antistreptococcus serum. The same attitude is held toward the method of artificial abscess, when an abscess is purposely induced by the injection of sterile oil of turpentine, the injection being made in the calf, the theory being that the abscess contents are sterile and that there is generated an antitoxin which counteracts the deleterious influences spreading from the uterine site. Two procedures, which in his hands have yielded good results, are saline transfusions and oxygen inhalations, these being used, of course, in addition to the local antiseptic measures. If pyosalpinx or ovarian abscesses result from infection, laparotomy is advised.—*Berliner Klin. Wochenschrift.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Nerve Force.

J. EMMET O'BRIEN, in the *Pennsylvania Medical Journal*, traces some analogies between nervous and electrical mechanism. He says that nerves are constructed like electric cables and are insulated, distributed and arranged like fine electric conductors.

Their purpose and use are the same as the purpose and use of electric conductors, namely, communication from point to point.

They convey some form of force.

It is probably electricity—

Because electricity is always present when they act.

Because electricity is the form of force that would do the work required.

Because it is the form of force that would work with such construction.

Because the terminal and central mechanisms connected with the nerves correspond to the terminal and central mechanisms connected with electric system of communication, and do similar work in sending, receiving, relaying, switching, transforming, accumulating, retarding, discharging, concentrating, distributing and translating impressions.

Finally, because electricity is the only form of force that we know of that would do all the work required with such construction of conductors and of terminal mechanisms.

He therefore concludes that nerve force is electricity; that it is produced in the nervous system by chemical processes analogous to those which produce heat in the general tissues, i.e., oxidation; and that it would advance knowledge of the nervous system and its function to acknowledge this proposition, at least as a working hypothesis.

Diagnosis of Beginning Tuberculosis by Examination of the Sputum.

Drs. L. BRIGER and F. NEUFELD (*Deutsch. Medical Wochs., Fortschritte der Medicin*) say:—In order to render clinical examination of value in the early stages of pulmonary tuberculosis, they believe—

1. That it is necessary to thoroughly examine the sputum, not only for the tubercle bacilli, but also for other bacteria, particularly the exciters of the so-called mixed infection.

2. That when no tubercle bacilli are found, the sputum be repeatedly examined at longer or shorter intervals.

3. That in every case the clinical diagnosis be confirmed, since it is only by the correlation of clinical and bacteriological findings that diagnostic and prognostic conclusions can be drawn.

4. That in all doubtful cases in which a number of examinations have resulted negatively, the tuberculin test be employed.

Bacteriology of the Influenza Bacillus.

DR. AUGUST JEROME LARTIGAU says:—The *Bacillus influenzae*, discovered by FRIEßER in 1892, appears as an extremely small, slender, nonmotile bacillus, whose length scarcely exceeds its breadth by two or three times. The bacilli may be stained by any of the basic aniline dyes, which they take up rather feebly and irregularly; the poles are usually more deeply colored than the middle parts, often giving the appearance of diplococci. Outside the body it is very susceptible to injurious influences, and from many observations it has been generally assumed that the extracorporeal existence of the influenza bacillus must be very short, and that infection probably takes place by means of the freshly contaminated secretions. Within certain limits an early diagnosis may often be made by a mere microscopical examination without resorting to cultures. When other bacteria are present, the diagnosis becomes more difficult, and cultures will usually then be required. Pure cultures may best be obtained on the surface of solid media, previously smeared with a small amount of human or animal blood.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

A New Mystery in the Sausage.

DR. SCHILLING is credited with the discovery of a new mystery in the composition of that already sufficiently mysterious article of diet—the sausage. He had often remarked moulds lodged in the inequalities for the inner surface of the skin. He examined pieces of dried gut, such as are found in the market, and was surprised to find adhering to them a considerable amount of *débris* of straw and fragments of grain. He argued that if such remains were fairly abundant after drying, they must be still more so in the fresh guts used by pork-butchers. He had some difficulty in procuring samples, as only enough is prepared for the needs of the makers, and they are not willingly sold. After repeated examinations he satisfied himself that these intestines of oxen or pig contained an amount of excremental matter which may be estimated at from 2 to 3 grams per metre of small gut, and 5 per metre of large. If the skin of sausages is carefully removed, only a small part of this filth is swallowed; but if they are eaten with the skin, a considerable quantity must be swallowed. Dr. SCHILLING estimates that a German workman consuming 10 to 15 cm. of sausage daily swallows 4 to 5 grams of excrement in the week, or 30 grams per month. One needs only, he says, see the butcher prepare the guts by washing in a little dirty water to know in what state they must be in regard to cleanliness. He admits that it is not easy to clean the intestines thoroughly, and he is not clear as to the pathological effects that may be caused by eating the matters referred to. There can be no doubt, however, that such substances answer to the definition of dirt as "matter in the wrong place," and, to say the least, they can hardly be regarded as wholesome articles of food. They are certainly not appetizing. Hog's dung, taken in water and wine, had a great reputation in the Middle Ages as a remedy for blood-spitting and pain in the side. But the return of the *Saturnia regna* of organotherapy, which appears to be in prospect, has not yet led us to this particular medication. And, whatever may be its therapeutic virtues, most people would probably prefer not to have it administered in their morning sausage.

Logwood Claret.

A CORRESPONDENT suggests a certain way of detecting the artificial colouring of wine. Open a bottle of claret, then fill up a large glass full of water. Insert a finger in the mouth of the bottle, then immerse the finger and the mouth of the bottle in the glass of water, then withdraw the finger carefully, and if the water in the glass takes a red colour at the bottom of the glass, the wine is artificially coloured. Whereas, if the red colour will stay at the top of the glass, the wine is pure. The explanation of this is that the colouring being heavier than the water sinks to the bottom, whereas if the wine is pure it will not discolour the water at the bottom of the glass. Colouring from any chemical will operate the same way.

Morphine Poisoning.

A GERMAN physician has recently published statistics concerning the number of deaths from morphine poisoning in Prussia. He found in a single year 135 cases, 80 being men and 55 women. Among the men were 20 physicians, 2 chemists, and 2 nurses, all of whom died between the ages of 30 and 40 years. Among the women were wives of physicians, sisters of charity, and a maidservant, whose death quickly succeeded that of her mistress.

Poisoned Tea.

PHOSPHORUS and tea hardly seem to appeal to one as a beverage, but such a mixture was recently, by accident, drunk at a hospital in France, with results, as may be imagined, the reverse of pleasant. Several patients in one of the convalescent wards were the victims. One of the patients, in reaching for a glass, overturned a box of matches, throwing half its contents into a can of tea, which was about to be served to the inmates of the ward. The patient, whose duty it was to distribute the tea, noticed the matches floating about, but thought nothing of it, and merely fished them out and went on with the distribution. Soon after drinking the tea several of the patients became very sick, but the cause of the trouble was quickly discovered, and prompt medical aid averted any serious consequences.

A Warm Bath for a restless Child.

A WARM bath just before going to bed tends to allay the nervous irritability which prevents sleep in children, whether caused by temper or work, and it does so probably by dilating the blood-vessels on the surface of the body, and so relieving hyperemia of the brain. A warm mustard foot-bath—an excellent remedy for sleeplessness—is also beneficial through its derivative effects.

Indictment and Dying Declarations in Abortion Case.

In State vs. Meyer, where the indictment charged an attempt, without lawful justification, to cause the miscarriage of a woman pregnant with child, the Supreme Court of New Jersey held that it was error to admit in evidence the dying declarations of the woman. The reason it assigned for this was that as the Legislature, in the Crimes Act of 1898, declared the act of the accused to be high misdemeanor, whether the woman or child died in consequence thereof or not, the death of either was not an essential element of the crime, but was really a fact to be considered in fixing the penalty. But this reason the Court of Errors and Appeals of New Jersey does not think sound. It says that while it is true that the statute calls the prohibited conduct a high misdemeanor whether the woman or child die in consequence thereof or not, yet, on due attention to all its provisions, it clearly appears to describe two high misdemeanors—one where the woman or child dies in consequence of the operation, and the other where death does not ensue. And it deems it indubitable that, to warrant the severer sentence, the indictment must charge all the statutory constituents of the more aggravated crime. Its distinguishing feature, the death of the woman or child as a consequence of the attempted abortion, must therefore be alleged in the indictment, and thus made the subject of investigation and proof at the trial. Then, when the death of the woman is thus charged as an element of the offense, necessary to be proved in order to establish against the accused the graver crime and subject him to the severer punishment, her dying declarations, the court holds, are legal evidence. It says that it is aware that the question whether dying declarations can be received when the indictment does not specifically charge either murder or manslaughter has been answered in the negative by some tribunals whose judgments are entitled to very great respect. Nevertheless, after due consideration of those decisions, it prefers to hold that, on the trial of an indictment charging the defendant with the statutory misdemeanor of attempting to cause the miscarriage of a woman pregnant with child, in consequence whereof the woman died, the dying declarations of the woman are legal evidence. Of course, under this decision, an accused person, the court goes on to say, may be exposed to the danger of having the dying declarations of a woman put in evidence when her death is charged as the consequence of an abortion, but is not fully proved to have resulted therefrom, and thus they may be used in the jury room as evidence to convict him of abortion merely, without resulting death. However, such a danger may always exist when evidence is legally received by the court for a purpose not ultimately accomplished, and must be guarded against, as far as possible, by appropriate instructions from the court.—*Jour. Amer. Med. Assoc.*

Jury Not Supposed to Know Value of Medical Services.

To leave to a jury to determine the value of the professional service of a physician as an element of damages in a personal injury case, the number of his calls and consultation at his office alone being put in evidence, the fourth appellate division of the Supreme Court of New York holds, in the case of *Carier vs. the Village of Nunda*, is error. At the most, it holds, the recovery for medical attendance should, under such circumstances, be limited to nominal damages. There is, it says, no fixed and definite schedule of charges of which a jury may take judicial notice by which the value of professional services may be determined, and their value is not a matter of such common knowledge that jurors may be permitted to appraise the same unaided by other evidence, even though such evidence would be advisory, and not necessarily controlling upon their judgment.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

On the Use and Abuse of Lavage.

MUSSER (*Therapeutic Gazette*) believes that not 5% of the cases of gastric disease, or of patients suffering from symptoms suggestive of gastric disease that are under his care, have required lavage in their treatment. He employs lavage in cases of atonic dilation, when retention is extreme; in cases of organic pyloric obstruction; in cases of gastric neurasthenia, and in certain cases of hysteria; in some cases of chronic gastritis with subacidity. This limits its practice to a small number of cases only. In some cases of hysteria he employs lavage once a week or ten days for reasons readily appreciated. In his earlier practice, the author states that he employed lavage more frequently, but he has found that he can obtain as good results with other means. He can do more with a carefully regulated diet, with massage, physical culture, out-door life, mental occupation and cold baths than with local gastric treatment. The most useful mechanical gastric management in selected cases is a properly fitting abdominal belt. The truth of the matter is that most so-called gastric cases are not of stomach origin. The nervous system, the blood, the general and local musculature are at fault. Hence, more gastric bases are cured by iron than by pepsin; by *nux vomica* than by specific aids to digestion. When the author employs lavage, he does it himself, or has a medical man do it at stated intervals. To allow patients to do it, soon develops in them a habit, which cannot be too strongly condemned.

Use of Garlic in Pulmonary Tuberculosis.

DR. GIULIO CAVAZZANI (*Policlinico*) reports a series of experiments conducted in the city hospital of Venice with reference to the action of garlic in consumption. Garlic is cut into small pieces and dried for a short time. It is given in this form to the patients in quantities of from four to six grammes in twenty-four hours, in fractional doses and in various ways, in order to combat the distaste that most patients manifest for the drug. Over two hundred patients were thus treated, and in addition to the garlic, the patients were given the ordinary hygienic and symptomatic treatment. An improvement is said to have taken place in all stages of tuberculosis, especially in the early cases. The sputum becomes mucous in character, the number of bacilli diminishes, until it completely disappears, the cough is lessened, the local physical signs disappear as to the night sweats and the hæmoptyses, and there is a marked improvement in the appetite and the general condition.

Influence of the Röntgen Rays upon the Skin.

DR. ROBERT KIENBOCK (*Wiener klinische Wochenschrift*) has written an elaborate essay upon this topic. He concludes that certain chemical changes result in the skin from the use of the rays. A "Röntgen-dermatitis" may ensue which may take on an acute or chronic course and varying degrees of severity. Alopecia, desquamation of the horny layer and the nails, hyperæmia and swelling of the skin, may be the only phenomena; or vascular formation followed by exfoliation and serous or purulent exudation may appear. A dry "burn" may result from the use of the rays. Restoration of the affected skin begins at the periphery. Different parts of the body seem to be differently susceptible, and the total time of exposure plays an important rôle. Individuals differ in susceptibility, children and young people reacting more intensely than older persons.

Potatoes in Diabetes Mellitus.

A. MOSS (Klinisch-therapeutische Wochenschrift) answers the mooted question as to whether potatoes may have a place in the dietary of the diabetic, in the affirmative, and cites two cases in which the wisdom of such addition to the fare was evidenced by a prompt decrease in the amount of sugar excreted in the urine. The potatoes should be given to the amount of from two to three pounds daily as a substitute for the whole or a part of the bread allowed. The cases which seem to respond best to such management are those of medium intensity and of the arthritic type.

Atropine Treatment of intestinal obstruction.

LUTGEN says:—The results of other advocates of this method of dealing with intestinal obstruction have already been reported in abstract in this journal, and the observations of the above writers confirm the favorable conclusions of their predecessors. Of the four cases they detail, recovery followed in three, and was undoubtedly due to the atropine injection; and though the fourth terminated fatally, the medical treatment was not resorted to until after operation had failed to relieve. The dose employed is the huge one of 0.005 gm. (gr. $\frac{1}{12}$), but toxic symptoms were noted in only one instance and then soon subsided, while happy results have now been reported in so many cases as to justify a trial of the method whenever operation is contraindicated or refused.

For Milk Leg—Phlegmasia Dolens.

R. Ext. hamamelidis fluidi ... 3i.
 Extractis simplicia
 Syrupi simplicis ... aa 5ss.

M. Sig. One to two teaspoonfuls three or four times a day.—PATERSON: Dominion Med. Monthly.

Creosote Wine.

R. Creosote ... 3ss.
 Tinct. gentian ... 3i.
 Spir. vini rect ... 3vliij.
 Vini acrici ... q.s. ad Oij.

In tuberculosis a dessertspoonful several times a day, unless much fever is present.

For Loss of Hair.

BABIL, in Jour. de Méd de Paris, recommends the following application for the arrest of the falling of hair:

R. Acidi hydrochlorici ... m℥xxv.
 Alcoholis ... 3v.

M. Rub the scalp well every night with the solution.

Correspondence.

THE INDIAN CIVIL SERVICE RULES THE I.M.S.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Another I. M. S. in your issue of the 16th January has tried to show that the I.M.S. and India are being ruined by the action of the Covenanted Civil Service, in securing to themselves all authority, and burking information, so that their little misdeeds may not reach Government officially: if we look through Government rules and circulars we see that Government has done its utmost to prevent injustice.

Government has ruled that officers are not to borrow sowari, except in the way that one English gentleman would borrow from another; the order shows that Government knows and disapproves of the existing practice of commandeering zamindars' elephants and carriages. With the present method of working the Indian Civil Service, individuals guilty of turning to their private advantage the privileges of their official status can do so with impunity. A member of the Indian Civil Service, arraigned for malpractices, has peculiar advantages; his official superiors are members of his own service, their enquiries are conducted among persons who think, and perhaps correctly, that they dare not give truthful evidence; the statements of the accused, except in judicial cases, are privileged communications, and ordinarily (except in a case of rape or murder) a civilian may be guilty of any offence without the truth being proved.

Official and social discourtesy is the prevailing sin of a certain class of Indian Civilians. From the day he lands he is taught to consider himself above all men officially and socially, and in a small station there are no military men to teach the young blood that he is not a god, and he frequently grows into an intolerable cad without knowing it: his official and social shortcomings are never brought to notice, as without an appeal to the Viceroy redress is impracticable: judging by the disension and discontent prevalent in so many districts, appeals to the Viceroy should be frequent; they unquestionably would be so, were it not known that the man who appeals to the Viceroy against a covenanted civilian makes that service his enemy, and that, if no worse befall him, he and his family will be sent to rot in some unhealthy district, and the exigencies of the public service will prevent his getting leave: small wonder then that discontent is rife in the services—Native and European—and that men let their work slide rather than be at cross-purposes with the District Officer.

The latter, surrounded by subordinate native officials, alienated from his European and native officers by his overbearing manner and conduct, is not a blessing in a district; his underlings are a scourge to the people, who never venture to complain, because judicial proof is required from them and can so seldom be brought forward for obvious reasons.^{*} It is the system which spoils men. Were a civilian trained as other responsible officers are, and taught that he is a public servant and not the master of the public, he would learn the lesson as readily as he at present imbibes the opposite idea, and so often becomes known as a typical civilian of the bad sort, by which is meant—a man conceited beyond belief, perfectly satisfied that he knows more about everything under the sun than any other man, smilingly supercilious, or openly rude and discourteous, accordingly as he is built; these men we meet almost every day of our official life: they are not in touch with their European or native brother officers, or with the native gentlemen of their districts; the reason is simple and self-evident—they look

^{*} This was written before the Honkball case appeared in the Pioneer of March 7th, in which Mr. Fyfe-Hilliard says:—"In this country the only people who will come forward to give evidence against officials in a case of this kind are those who do not mind their houses being burned, their crops looted, their relatives being turned out of Government employ, and themselves and the members of their families dragged up on false charges and sent to jail."

at matters from a different standpoint, theirs being that they are public masters, not public servants, and that India and all its are to work for their ease, comfort, and profit.

"The Guzerat Revenue enquiry," as printed in the *Pioneer* of the 9th January, explains why no one complains against a civilian if he can help it (I do not say the charge is true). An unscrupulous man can work dire mischief in his district, and ordinarily his civilian confère "cannot believe that a Collector can have been guilty of improper conduct." This is the keynote of Indian administration—"the civilian can do no wrong."

If the English officials alone were concerned, it would matter little how the civilian behaved: they work on as best they can, in spite of the adverse circumstances caused by the policy of "India for the Civilian." It is the unfortunate consequences which accrue to the Indian peoples from the attitude of the civilian which is most to be deplored; all power is in his hands, and all mistakes, errors, and injustice are hushed up in his interests and that of his Service.

Covenanted Civilians have obtained control of all the departments, whether officered by Europeans or not; their jealousy of power has deprived all other officers of any, and the result is that India is ruled, not by Europeans, but by the subordinate officials of the District Officer, with what result we see only when a riot occurs. All maladministration is covered by the correspondence which passes through the District Officer, and on which he puts his own construction in his privileged communications; grave injustice, gross malpractices of subordinates, never come to light, because all that is done is supposed to be done by, or under, the authority of the District Officer, and for his own sake he minimises the evils which are daily growing, and will grow, till some catastrophe brings the bungling methods of administration to light, and we enter on a fresh chapter in the history of India.

There is a constant cry for more European supervision. Yet the departmental European officers already in existence are ignored, because any other course would make it impracticable for the covenanted civilian to secure for his service all the plums they at present enjoy. Almost all departments have civilians at their head, and this necessitates the useless subordination of departmental officers to the District Officer; so as to enable the Civil Services to make out a plausible claim to the big appointments based on the inefficiency of departmental officers. The Police Department, with its subordinated European officers, is a typical example of how not to do it; the Medical Department is another. Hospitals are unpopular, because the Civil Surgeon is powerless in all matters except the treatment of the sick; he nominally works in consultation with the District Board—in practice the Collector—and his subordinates settle everything for him without reference to him or to any Board, and discipline and efficiency suffer.

Every one admits that the covenanted civilian is the head of the district administration, and that all matters of importance must be decided by him—it is the unnecessary

subordination of departmental officers in matters of detail which interferes with good work and places so much power in the hands of the Collector's subordinates, as it is not possible for the Collector to look into all that now goes through his office; hence he is unable to control his subordinates and to prevent misrule and oppression. This condition of things must and will obtain, while the public interests and those of all other Government servants are subordinated to the interests of the Covenanted Civil Service.

Under existing circumstances, the Indian Medical Service does not seem to be a desirable career.

Yours, &c.,

ANOTHER I.M.S.

COMPLAINTS AGAINST THE MEDICAL COLLEGE HOSPITAL, CALCUTTA.

TO THE "EDITOR, INDIAN MEDICAL RECORD."

Sir,—Referring to the letter addressed to the Superintendent of the Calcutta Medical College Hospital, and published in your issue of the 27th ultimo, ~~about~~ the unfair discharge of Babu KADER NATH GHOSAL from the Charitable Institution, who had been admitted there as an in-door patient suffering from ulceration in the ~~testes~~, and been fairly on the way to recovery under treatment in the said Hospital, I beg to append below the correspondence that passed between the petitioner, Babu BENDU BEHARY BANNERJEE, of No. 52, Champatolla 1st Lane, Calcutta, and the said Superintendent:—

"MEDICAL COLLEGE HOSPITAL,

1st February 1901.

DEAR SIR,

In reply to your letter dated the 29th ultimo, I have to inform you that on enquiry I find that the case in question was one of sloughing scrotum, and it was not considered advisable to keep him in the surgical wards here, as it would infect other wounds. He was told to go to the Campbell Hospital, but it appears he preferred going home.

Yours, &c.,

R. F. KNIGHT,

Assistant Superintendent, Medical College Hospital."

"No. 52, CHAMPATOLLA 1ST LANE;

Calcutta, 28th February 1901.

TO THE SUPERINTENDENT,—

Medical College Hospital.

DEAR SIR,

In reply to your favor of the 1st instant, I regret to inform you that your explanation cannot, be correct, as the same does not agree with the facts stated below:

The patient, No. 15, was not affected with infectious ulcer, which has been assured by the Doctor treating him after removal from the Hospital. The patient emphatically denies that he was requested to be removed to the Campbell Hospital, and says that he never thought

of going home before recovery. The relatives, of whom I am one, on their visit were daily assured by Dr. DEBENDRO NATH HAZRA that the patient was fairly improving and many (sic) be cured within a week. Under the circumstances, I am advised to ask for a copy of the daily clinical reports of the case which I hereby do, and shall thank you to send the same. In conclusion, I may bring to your notice that when my brother asked for the certificate of discharge, the said doctor told him that the forms were looked up and that it would cost him not less than five rupees. I shall feel obliged by your instituting further strict enquiries with a view to ascertain and communicate to me the motives which actuated the said doctor and nurse of the ward to order immediate discharge of a poor patient, even without granting the usual certificate. The unfortunate man is still suffering in his native village without proper medical help.

I remain, Dear Sir,

Yours faithfully,

BENODE BEHARY BANNERJEE."

"No. 52, CHAMPATOLLA 1ST LANE,

Calcutta, 7th March 1901.

TO THE SUPERINTENDENT,

Medical College Hospital.

DEAR SIR,

I beg to invite your attention to my letter dated 28th ultimo, requesting the favor of your kindly communicating to me the result of your enquiry with a copy of the clinical reports of the case in question. An early compliance with my request will oblige.

I remain, Dear Sir,

Yours faithfully,

BENODE BEHARY BANNERJEE."

MEDICAL COLLEGE HOSPITAL,

Calcutta, 9th March 1901.

DEAR SIR,

With reference to your letter dated the 7th instant, would you mind calling over at my office on Monday, the 11th idem, at any hour that may suit your convenience.

Yours faithfully,

R. F. KNIGHT,

Assistant Superintendent, Medical College Hospital."

"No. 52, CHAMPATOLLA 1ST LANE,

Calcutta, the 11th March 1901.

TO THE SUPERINTENDENT,

Medical College Hospital.

DEAR SIR,

In reply to your letter dated the 9th instant, I regret to inform you that as I have hardly any time to spare, I could not comply with your request. I shall be much

obliged if you kindly communicate to me the result of your enquiry in writing, together with the clinical records asked for in my letter dated 28th ultimo.

Yours faithfully,

BENODE BEHARY BANNERJEE."

Why the Superintendent should ask the petitioner, Babu BENODE BEHARY BANNERJEE, to call at his office, instead of putting in black and white the result of his enquiry, we fail to understand.

Yours, &c.,

FAIR PLAY.

HUGHLY, 11th March 1901.

(We consider our correspondent should have called on the Superintendent of the Hospital. It is quite clear that that officer was not unwilling to afford him satisfactory proof of the reasonable ground on which the patient was advised to leave the College Hospital and to have himself admitted into the Campbell Hospital. This course is occasionally followed in septic cases, as the College Hospital has no special arrangements for isolating such patients. Ed.—J. M. E.)

ALL ABOUT SNAKE STONES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I send the following by ANDREW WILSON, F.R.S.E., which will be of interest to your readers:—I have a request to make to the readers of this column, and especially to those who reside abroad in countries in which poisonous snakes abound. I wish, if possible, to procure specimens of the "snake stones" which are used in India and elsewhere for the cure of snake-bite. My interest in this topic has been excited by the gift of a snake stone from a lady once resident in Ceylon. The stone sent me was used in her presence by a snake-charmer who was bitten by a snake which he had lured from its hiding place in the compound of the lady's house. These men confess to clear a place of snakes and charm the reptiles from their holes by playing on a pipe. The bitten man had the stone applied to the wound. It then dropped off and was placed in milk, when there came from it a yellow fluid, presumably the snake-poison. The man recovered from the bite.

In another case the Captain of a regiment stationed at Kandy witnessed a similar incident. The stone in my possession is a small crystalline-looking object, about an inch long. I have not yet determined its nature, but it is not pumice at least, as snake stones have so often been described. What I am anxious to acquire, also, are exact accounts from eye-witnesses of the application of this curious remedy. I suspect it is applied in many countries, and so far as I can learn is regarded with some show of superstitious reverence by the natives. I have suggested that possibly there may be a little fraud present in the snake stone practice. A cobra bite is almost certainly a fatal accident unless remedies be applied at once, and even medical aid is not always successful in warding off a fatal issue. Thousands of people perish every year in India alone from snake-bite, and what I want to know is why the snake stone, if it is a remedy, is not universally used in India? Is it that the stones are regarded as the special possession of the snake-charmers, and not to be had by the vulgar herd, so to speak? Or is it that the snakes the charmers draw forth

from a house are their own snakes which they have previously liberated, and whose fangs have been drawn? In the latter case the bite of the snake's ordinary teeth would be of no great consequence, and the application of the snake stone would, of course, come to be regarded as a mere trick.

These are points which it is much to be desired should be cleared up, and I invite my readers abroad to help me in the work of investigation. The *bond-fides* of the snake-charmer is a very important element in the matter, for if his snakes are really poisonous—or, rather, if any snake which bites a man said to have been cured by a snake stone is really a poisonous reptile—then the matter assumes a very interesting phase. But it is evident we must be sure of our ground here before we assume the reality of the power of snake stones to avert a fatal catastrophe.

Yours, &c.,
ANDREW WILSON, F.R.S.E.

MEDICAL ADVERTISING IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The epidemic of medical advertising, not only in Calcutta, but in other parts of India, suddenly ceased after the exposures of the *Record* showed up the guilty ones. It seems exposure is the only cure for this malady, so I send the annexed advertisement, which is being distributed broadcast in Calcutta, by a firm of native druggists, with an English name. I regret to find an English military doctor allowing his name to be mixed up with this business. Here is the "flyleaf" bearing the advertisement:—

"HOWARD & CO.,

48, Dhurrumtollah Street.

"Is the *cheapest* Medical Hall where fresh and genuine drugs, chemicals, &c., may be purchased at moderate prices.

Prescriptions dispensed under competent European supervision at all hours of the day or night at extremely moderate charges.

Competent Medical Advice afforded to patients free of charge daily by two popular Medical Officers—Surgeon-Captain J. B. MALONEY, Surgeon, Physician, and Obstetrician, who can be consulted daily from 8 to 9 A.M. and 5 to 6 P.M.

Dr. S. M. H. RAHMAN, L.M.S., specialist for the diseases of women and children, can be consulted daily from 9 to 10 A.M. and 4 to 5 P.M.

Fresh supplies of goods are imported monthly from the leading London Houses, and constituents may therefore rely, with the utmost confidence, that only the most fresh and purest drugs are used in all prescriptions dispensed by this Firm."

"The patronage and support of the public is respectfully solicited."

Surely this ought to cease at once.

Yours, &c.,
L. M. S.

Government Medical Gazette.

BURMA.

Hosp. Asst. Abdul Hussain relinquished ch. at the Police Hosp., Myitkyina, on the 11th Jany. 1901, and assumed ch. at the Outpost Hosp., Kamaing, Myitkyina dist., on the 18th Jany. 1901, as a suppy.

Hosp. Asst. Shaik Abdul Aziz assumed ch. at the Police Hosp., Falam, on the 2nd Jany 1901.

Hosp. Asst. Raj Chunder Kur assumed ch. at the Civil Hosp., Maymyo, Mandalay dist., on the 4th Feb. 1901.

Hosp. Asst. Ibrahim Hussain assumed ch. at the Police Hosp., Tiddim, Chin Hills, on the 26th Dec. 1900.

Hosp. Asst. Kishori Mohun Majumdar assumed ch. at the Police Hosp., Monywa, on the 30th Jany. 1901.

Hosp. Asst. Ibrahim Hussain assumed ch. of additional duties at the Civil Hosp. Tiddim, Chin Hills, on the 3rd Jany. 1901.

Hosp. Asst. K. O. Majumdar, on return from leave, assumed ch. at the Police Hosp., Pakokku, on the 16th Nov. 1900.

Hosp. Asst. K. C. Majumdar relinquished ch. at the Police Hosp., Pakokku, on the 15th Dec. 1900, and assumed ch. of his duties with the Escort proceeding from Mindat-Sakan, Pakokku, Chin Hills, on the 15th Dec. 1900.

Hosp. Asst. Abdul Myjid relinquished ch. at the Civil Disp., Thabakhan, Southern Shan States, on the 5th Jany. 1901, and assumed ch. of his duties with the Itinerant duty, Myelat, Southern Shan States.

Hosp. Asst. V. Venkatasawmy Pillay relinquished ch. at Contagious Hosp., Rangoon, on the 26th Dec. 1900, and assumed ch. of duties with Ry. coolies at Tharrawa, First divn., Bawein-Henzada Ry. Construction, on the 31st Dec. 1900.

Hosp. Asst. V. Venkatasawmy Pillay made over, and Hosp. Asst. M. Henry Peters assumed, ch. of addnl. duties on the Ry. line between Rangoon and Hmawbi on the 26th Dec. 1900.

Hosp. Asst. M. Henry Peters relinquished ch. of suppy-duties at the Gen. Hosp. Rangoon, on the 26th Dec. 1900, and assumed ch. at the Contagious Diseases Hosp., Rangoon.

Hosp. Asst. Syed Ashgar Hussain relinquished ch. at the Civil Hosp., Katha, on the 25th Dec. 1900, and assumed ch. at the Police Hosp., Katha.

Hosp. Asst. Sunder Singh relinquished ch. at the Ry. Hosp., Wuntho, Katha dist., on the 23rd Dec. 1900, and assumed ch. at the Civil Hosp., Katha, on the 25th Dec. 1900.

Hosp. Asst. Syed Ashgar Hussain made over, and Hosp. Asst. Sunder Singh assumed, ch. of addnl. duties at the Jail Hosp., Katha, on the 25th Dec. 1900.

Hosp. Asst. H. D. Pantulu relinquished ch. at the Outpost Hosp., Lweijibum, Bhamo dist., on the 18th Dec. 1900, and assumed ch. at the Police Hosp., Bhamo, on the 23rd Dec. 1900.

Hosp. Asst. S. C. Banerji relinquished ch. at the Outpost Hosp., Tagaung, Ruby Mines dist., on the 3rd Sept. 1900, and assumed ch. at the Police Hosp., Thabakkyin, Ruby Mines dist., on the 4th Sept. 1900.

Hosp. Asst. Devi Dayal relinquished ch. at the Outpost Hosp., Thabakkyin, Ruby Mines dist., on the 4th Sept. 1900, and assumed ch. at the Outpost Hosp., Tagaung, Ruby Mines dist., on the 6th Sept. 1900.

Hosp. Asst. Lalchand, on transfer to Mandalay, relinquished ch. at the Gen. Hosp., Rangoon, on the 11th Dec. 1900.

Hosp. Asst. P. Sanjivi Naidu relinquished ch. at the Police Hosp., Bharno, on the 18th June 1900, and assumed ch. at the Outpost Hosp., Paukhamu, Bharno dist., on the 25th June 1900.

BOMBAY.

Hosp. Asst. Mansukh Ranchod, from gen. duty, Ahmedabad, to Civil Hosp., Surat.

Hosp. Asst. Luxmon Murari Salt, from gen. duty, Poona, to Gokuldas Tejpal Hosp.

Hosp. Asst. Ramchander Narsingh Joshi, from Gokuldas Tejpal Hosp., Bombay, to Dispy., Akola.

Hosp. Asst. Vitthal Mahalapa, from gen. duty, Poona, to Civil Hosp., Dharwar.

Hosp. Asst. Yashwant Shridher Shidaye, from Civil Hosp., Dharwar, to Dispy., Shihada.

Hosp. Asst. Shaikusan walad Shaik Mohamed Hussein, from gen. duty, Poona, to Civil Hosp., Godhra.

Hosp. Asst. Myro Pandurang Kolatkar, from gen. duty, Poona, to Civil Hosp., Ratnagiri.

Hosp. Asst. Jemtriram Fransukhram, from gen. duty, Ahmedabad, to Civil Hosp., Broach.

Hosp. Asst. Wadilal Jannadas, from gen. duty, Ahmedabad, to Civil Hosp., Kaira.

Hosp. Asst. Govind Gungadhar Jatar, from Famine duty, to Dispy., Yellapur.

Hosp. Asst. Narayen Krishna, from Dispy., Yellapur, to Dispy., Jamner.

Hosp. Asst. Narayen Vithoji Sawant, from Fair duty, Alandi, Poona, to gen. duty, Bombay.

Hosp. Asst. Sakharam, Tookaram, from Famine duty, to gen. duty, Bombay.

Hosp. Asst. Sakharam, Tookaram, from gen. duty, Bombay, to Civil Hosp., Dhulia.

Hosp. Asst. Dhondu Atmaram, from Famine duty, to gen. duty, Bombay.

Hosp. Asst. Wishwanath J. Cindekar, from Famine duty under the orders of the Sany. Commr. for the Govt. of Bombay, to gen. duty, Bombay.

Hosp. Asst. Dattatraya Ramchander, from Famine duty, to Dispy., Pimpalgaon-Baswant.

PUNJAB.

On being relieved of the ch. of the office of Civil Surgn., Munaffargah, Asst. Surgn. Hira Lal reverted to the ch. of the Civil Hosp., Delhi, on the 18th Dec. 1900, relieving Asst. Surgn. Ala Jowaya.

On transfer from Delhi, Asst. Surgn. Ala Jowaya was apptd. to the ch. of the Egerton Hosp., Peshawar, on the 3rd Jan. 1901, relieving Asst. Surgn. Fazl-ud-din.

Hosp. Asst. Bansi Lal, doing gen. duty at Lahore, was transferred to Jullundur for gen. duty from the 3rd Jan. 1901.

Hosp. Asst. Sham Lal, Police Hosp., Dera Ghazi Khan, was transferred to the ch. of the Jail Hosp. at that str. on the 19th Dec. 1900, relieving Hosp. Asst. Vasa Ram.

Hosp. Asst. Vasa Ram was apptd. to the ch. of the Adampur Dispy., Jullundur Dist., from the 30th Dec. 1900, relieving Hosp. Asst. Ranjas.

Hosp. Asst. Ranjas was transferred to the ch. of the Police Hosp., Dera Ghazi Khan, from the 11th Jan. 1901, relieving Hosp. Asst. Sham Lal, who held ch. of the Police

Hosp. in addition to his own duties at the Jail Hosp. from the 20th Dec. 1900 to the 10th Jan. 1901.

Hosp. Asst. Ishar Das was placed on gen. duty at Jullundur from the 6th Jan. 1901.

Hosp. Asst. Katar Singh, resumed ch. of the Kala Dispy., Jhelum Dist., on the 26th Dec. 1900, relieving Hosp. Asst. Ladha Ram.

Asst. Surgn. Udai Bhan was placed in temp. ch. of the Shahpur Sadr Dispy., from the 2nd Jany. 1901, during the absence of Asst. Surgn. Diwan Ali to attend at examination at Lahore.

Asst. Surgn. Diwan Ali having passed the Septennial Prof. Examn. of Asst. Surgn. held on the 5th Nov. 1900, was promoted to the 2nd Grade from the 1st Nov. 1900.

Hosp. Asst. Sultan Ali, doing gen. duty at the Batala Dispy., Gurdaspur Dist., is placed in sub. ch. of that institution.

Hosp. Asst. Karm Chand resumed ch. of his duties at the Punjab Lunatic Asylum, Lahore, on the 15th Dec. 1900, relieving Hosp. Asst. Bansi Lal, who was placed on gen. duty at Lahore on the 17th Dec. 1900.

On transfer from Mooltan, Hosp. Asst. Muhammad Ramjan was apptd. to the ch. of the Karor Dispy., Dera Ismail Khan Dist., from the 17th Dec. 1900, *vice* Hosp. Asst. Ganesh Datta, who was placed on gen. duty in the Dera Ismail Khan Dist. from the 5th Dec. 1900.

On return from Lahore, Asst. Surgn. Diwan Ali resumed ch. of the Shahpur Dispy. on the 10th Jan. 1901, relieving Asst. Surgn. Udai Bhan, Imperial List, who was placed on gen. duty at Shahpur from the same date.

The leave on med. certificate granted to Hosp. Asst. Ganpat Rai from the 11th May 1900 is further extended by a period of six months.

BENGAL.

Asst. Surgn. Mohendra Nath Das, of the Jessore Dispy. is apptd. to do supy. duty at the Med. Coll. Hosp., Calcutta.

Asst. Surgn. Bejnl Behary Sen Gupta is apptd. as Resident Med. Offr. at the Police Hosp., Calcutta, *vice* Asst. Surgn. Kari Mohun Sen, transferred.

Asst. Surgn. Kari Mohun Sen, Resident Med. Offr., Police Hosp., Calcutta, is apptd. to do supernumerary duty at the Sumbho Nath Pandit's Hosp., Bhowanipore.

Asst. Surgn. Zahiruddin Ahmed, Khan Sahib, in med. ch. of the dist. of Bogra, is allowed privilege leave for three months, from the 18th Jan. 1901.

Lieut. Col. G. F. A. Harris, I.M.S., Prof. of Materia Medica and Clinical Medicine, Med. Coll., Calcutta, and *ex-officio* Second Physician to the Coll. Hosp., is also confirmed in the appointment of Med. Insp. of Emigrants (Inland Emigration), from the 27th August 1900, *vice* Lieut.-Col. E. G. Russell, I.M.S., retired.

Major E. H. Brown, I. M. S., Civil Surgn. of the 24-Parganas, is confirmed in the appointment of Med. Insp. of Emigrants (Colonial Emigration) in addition to his own duties.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

MARRIAGE.

SPRAWSON—BURTON.—At Locksow, on the 1st March, Outhbert Allen Sprawson, I.M.S., to Theodora Mary, eldest daughter of Francis George Burton, of Poynton, Cheshire.

ORIGINAL ARTICLES.

ON THE TEACHING OF PATHOLOGY

By J. G. ADAMI, M. A., M. D.,

*Professor of Pathology, McGill University,
Montreal, Canada.*

THE first thought of all will be, as it was my first thought, when, unguardedly, I acceded to the editorial invitation to contribute to these pages under the above title, that, if any one, a teacher should be able to write about the teaching of his special subject. Yet, unless the teacher is satisfied merely to set forth his particular methods, the matter is far from simple. Those particular methods depend in every case upon environment, opportunity, and the man. In the case of pathology, they depend upon the general curriculum of the school—whether by tradition the subject is made a part of the second, third or fourth year's course, or is spread over two or more years; upon the number of hours allotted; upon the extent to which the special pathology of different systems and conditions is taken up in the courses in medicine and surgery; upon the nature and extent of the course in bacteriology. In fact, just as every school differs in the details of its curriculum, so must the course in pathology vary in its details in order that it may dovetail into the rest of the teaching with the maximum of benefit to the student and the minimum of loss by repetition. Not that repetition is not in itself of high value: next to wandering from one university centre to another, and gaining a broad and discriminating understanding of a subject by observing how it is regarded by those in different surroundings, comes the advantage of hearing and seeing how the different teachers in one centre regard the same subject or portion of a subject common to all of them; but with the four years' course, and the terrible difficulty, nay, the impossibility, of compressing everything into it, repetition has to be reduced to the smallest limits.

And as for the man, the fuller the acquaintance with the methods of the great masters in any subject, the stronger the conviction that successful teaching depends not upon the fulfilment of any one code of procedure, but upon the peculiar gifts of the teacher. In pathology, for example, one man may be but an indifferent didactic lecturer, may, through his lectures, give to his students but a poor and lifeless insight into his subject; yet in the laboratory he may be an enthusiast, and his keen interest in the disclosures afforded by the microscope, or in the details and results of experimental investigation, may be infectious and may fully accomplish the great aim, that, namely, of imbuing the student with an appreciation, nay a love, for the subject taught. Another may reach the same goal by his enthusiasm in the *post-mortem* room, his deep knowledge of gross anatomical disturbances, his power of fixing in the mind vivid pictures of the results of different morbid processes. To yet another may belong the gift of clear, forcible exposition and of stimulating thought, so that the student carries away from the lectures, not so much

a wealth of facts, as a knowledge of underlying principles and an added power of orderly reasoning over the problems which will confront him in the practice of his profession. To different men different talents, and if among these there be, for the teacher, the first great talent—that of communicating the sacred fire of enthusiasm—it matters but little what methods be employed. After all, what the university professor can accomplish is to instil only the beginning of knowledge into the student; this instilled, and a right interest aroused, it is for the student to increase that knowledge, and he, with interest properly aroused, will surely "arrive."

Herein, very possibly, I speak as a heretic. In common with the majority of those having an English university training, the study of pedagogics has not formed part of my education; it is but right that in venturing to discuss "teaching" I should openly announce this fact, that my words be received with due caution. Nevertheless, if I may venture to criticise pedagogical methods, I would urge that those methods in the main are calculated for the non-enthusiastic and for the development of substitution products. They are methods whereby those cold and incapable of communicating the fire are enabled to excite the attention of the student. It is true that, employing them, the interested teacher may become more interesting. But first and foremost must stand ardent and evident love for one's subject, and this, like the broader love—charity—covereth a multitude of sins.

I dwell upon this matter of diverse talents, because at the present moment there is a movement, initiated at Harvard, to make the teaching of pathology almost entirely practical—and it is not unlikely that this movement may develop into a fashion, and fashions, I need scarce say, are apt to be extreme, applied without thought of propriety. If I understand aright, the orderly course of didactic lectures is practically abandoned; short talks are given daily upon the main subjects of, or arising out of, the demonstrations and experiments. But it is impossible to cover the whole ground of pathology by experimental work; certain important divisions do not lend themselves to class-work in the laboratory, and even if they did, it is here, in very truth, a case of *ave longa*; time imperatively forbids that the whole of general pathology alone be covered in this manner. As a consequence, the student gains a peculiar insight into certain portions of the subject and none into others, completes his course and goes out into the world with an imperfect perspective or "Übersicht." He has specialised too soon, and is liable to be one-sided.

This is the main objection to the method. Yet it is supported (*pace* Professor BOWDITCH) by a long array of pedagogical arguments, and in the case of individual teachers of strong personality, it may be eminently successful in arousing a keen appreciation for pathology. I will go further and say that, where good teachers are wanting, the method is calculated, by the inherent interest of the subject, to make the student appreciate and gain benefit from pathology; for by it he is brought into the inner chamber. To "see the wheels go round" in itself attracts and fascinates the beginner; to study the

works themselves and find out why they go round is of the highest value. Not for a moment do I question the value of laboratory methods; I do but question whether the reaction in favour of practical teaching may not be carried too far, and whether, generally adopted, the Harvard method will be as fraught with good results elsewhere as it may very possibly be at the place of origin.

Everything depends upon the teacher in the first place, upon his opportunities in the second; and this being the case, I shall not venture to set out any ideal course. The most that can usefully be done is to discuss the place of pathology in the scheme of medical education, and, taking the different portions of the ordinary course in our subject, to consider certain aspects of the teaching of the same.

Pathology is the science dealing with the modifications undergone by the functions of the body in disease, with the causes, the course, and the results of those modifications. In order to understand deviation of function with the associated alteration in structure, it is essential to have a knowledge of normal function and normal structure; hence the teaching of physiology and of anatomy (with histology) must precede the teaching of pathology. And here, if for a moment, I may digress into rank heresy, may I, as a pathologist, protest against the attitude of many physiologists of the present generation—an attitude which is damaging their influence in medicine, I refer to their tendency to teach their subject *per se*, regarding their science alone and regardless of the fact that their course to medical students is an integral portion—or should be—of one great whole. It is quite right that in instructing would-be physiologists this attitude be taken, and that research, also apart from teaching, be determined by the purest scientific considerations; but where in lecture and in the laboratory they have choice of dwelling upon several branches of their subject, of equal value from an educational point of view, then dealing with medical students, they assuredly should give special attention to such as are of especial value to those students, as forming a basis for their later studies. ° The laws governing muscular irritability undoubtedly throw great light upon the irritability of cells in general, and nerve-muscle experiments in the laboratory, performed by the students themselves, are of peculiar value as an introduction to the methods of exact investigation of bodily processes; but surely it shows a lack of sense of the fitness of things to devote one-third or so of the whole course in elementary physiology for medical students to the study of muscle-phenomena alone. As a consequence, the time of the pathologist is too often taken up in teaching elementary physiology. This ought not to be.

But while complaining thus, let me urge that the physiological laboratory is peculiarly the training-ground

° I do not for a moment wish to suggest that the course in physiology should be in "medical physiology" alone. The student should be given a broad grasp of the whole subject. The ideal curriculum for the medical student, as Sir Michael Foster points out to me, is an elementary course in which the outlines of every department of physiology are treated, followed by an advanced course in which those portions which have a peculiar bearing upon medical problems of present interest are studied in fuller detail.

of the pathologist. Every physiological experiment is at the same time an experiment in pathology. Each time that the physiologist varies one or other factor concerned in a vital process, in order to determine the part played by it, he introduces a deviation from the normal; the experiment is physiological or pathological solely according to the point of view of the investigator. It is in the physiological laboratory that the student should learn the methods of pathological investigation.

Thus much with regard to the relationship of the subject to the first part of the curriculum. Now as to its relationship to the latter portion.

In order to understand the significance of the symptoms of an individual case of disease and the connection between them, it is essential to have a ground-work of knowledge of how those symptoms are in general produced, what disturbances they indicate in the structure and functions of one or other organ, and how those disturbances are likely to affect the system in general. It follows that the teaching of pathology should either precede that in medicine and surgery [more exactly in medical and surgical diagnosis and prognosis], or, as this is commonly not possible, that the main teaching in pathology be given coincidently with the first year's teaching in medicine and surgery, the instruction in the latter subjects being at the same time made largely pathological—that is to say, bearing not only on the symptoms of disease in themselves, but also, and particularly, upon their significance. From every point of view the latter is the better course. The student who has studied, it may be, a mere half a dozen cases of diseases, realises thereby the practical bearing of pathology; there is the same difference between the alternatives as between learning a foreign tongue at home and learning it among the people who speak it.

In his teaching, the duty of the pathologist connected with a school of medicine is emphatically to keep ever before him the idea that his course is part of the curriculum, and—though this is not a popular statement—that he is the connecting link between the physiologist and the anatomist on the one hand, and the physician and surgeon on the other. His duty is so to instruct those under him that they gain a basal knowledge of the deviations from the normal, of the principles of disease, a general knowledge which can be applied for the understanding of individual cases in the wards and in practice.

Keeping this in mind, we obtain a standpoint for determining the nature of the instruction to be given in the different courses forming the curriculum in pathology.

Didactic Lectures.—If the text-books of pathology most popular in English-speaking countries are in any way to be taken as an index of the general didactic teaching of our subject, then such teaching would seem erroneous in principle. Pathology does not stand towards medicine and surgery in the Hadibrastic relationship of rhetoric to oratory and composition. It is not primarily, as those text-books would appear to indicate, the science of naming one's tools. Science, to be complete science, does not consist in the mere accumulation of details, in

the grouping of facts and the naming of the same. This much is true, that in the evolution of every science there are three stages which may overlap, but are still recognizable: The first, that of vague generalizations from inadequate data, terminating in the generalizations being tested and found wanting; the second, reactive, of recognition of the urgent need for the accumulation of masses of facts, the stage, if I may so express it, of appreciation of facts as facts; and the third, the stage of full development, when, with abundant data before them, the workers in the science may proceed so to group those data that general laws as can be recognized and theories confirmed or disproved.

Under the dominant influence of Germany, owing to the inherent love of German students for exact detail *quid* detail, but over and above all, owing to the, in most respects, wisely conservative influence of VISCROW and his school, pathology has for long years been restrained in the second stage, which many still regard as the complete science. Our text-books, which are either translations from the German or of necessity reflect German teaching, dwell far more upon facts than upon their relationship and significance. Lectures along these lines are largely useless, save as a means of introducing the student to the whole array of morbid phenomena, and to this is owing the small influence exerted by pathology upon the medical student in the days of pure didactic teaching. But lectures can be of inestimable use if the hours be employed in applying the facts in discussing their causation and relationship, and deducing the laws governing the development of morbid phenomena, thus incidentally training the student in the methods of medical thought. If by this means the student is helped to think (and he has too little stimulus to develop the faculty during his medical course), it is comparatively a matter of small moment if some one or other conclusion or theory of the lecturer fails to stand later criticism. It is along these lines that the didactic lecture must be laid down, if it is to aid the student in the study of cases of disease. If from conscientious objections, or a natural unwillingness to venture upon conclusions, the teacher cannot thus teach, those lectures are better deleted from the calendar.

Lectures or Conferences upon the Special Pathology of the Different Systems.—These should follow the course in "general" pathology, preferably during the next year, their extent depending upon the extent to which the pathology of the different systems is treated by the lecturers in medical subjects; and, I may add, as regards certain portions of surgical pathology, by the surgeons. Where, as is most often the case now-a-days, special pathology forms an important portion of medical teaching, the teaching of this branch in the pathological department best takes the form of a series of weekly conferences over museum specimens, the different systems being reviewed in succession, oral examinations being held upon the gross anatomical conditions characterizing the various departures from the normal, the teacher from time to time stopping to dilate upon special topics and to systematize the facts brought forward. I do not say that this is at all adequate treatment; it is in many cases the most practicable. The true special

pathology is the application of the laws of general pathology to special cases and its converse, the study of how the special case conforms to the general laws. And from the point of view of medical education the advantage would be great were this method of regarding special pathology to govern the later teaching of our subject more than it does at present—the physician and the surgeon (as is now the case) employing the former mode of dealing with the subject, the pathologist the latter, the student thus being instructed to gain a fuller appreciation of values by regarding phenomena from two aspects.^o

Surgical Pathology.—Surgical pathology, by-the-by, is an *olla podrida* of select portions of general and systemic pathology, which should be treated didactically and practically in their proper places in the pathological curriculum. It only deserves to be recognized as a distinct entity when the needs of the surgical teachers demand that these select portions be treated at an earlier period than is possible in the orderly scheme of instruction. As a course, it is possibly of service as a means of giving prominence to those matters in which the views of the surgeon run counter to the generally accepted teaching of medical science, or the teaching of the individual pathologist—but such divergences, after all, can equally well be noted in the general courses in surgery and pathology. Happily with the advance of surgery—and of the surgeon—into every organ of the body, surgical pathology promises soon to be concurrent with and to fuse with pathology proper. But much can be said in favor of the establishment of a special course of surgical clinical microscopy, in immediate connection with the wards and operating theatre, for the determination of pathogenetic microbes and instruction in the rapid preparation and diagnosis of sections of removed tissues.

Laboratory Courses.—The value of laboratory training is so great that much might be said upon this topic alone, but at the same time it is now-a-days so fully appreciated that my remarks need be few. As I have already stated, I doubt whether, with the time at our disposal, we are justified in giving the ordinary student a training in experimental research; that training he should have already received in the physiological laboratory, and, having received it, it is sufficient to pre-suppose a knowledge of modes of investigation and to deal in the main with the practical results of disease. An occasional demonstration bearing upon the mode of development of some particular morbid condition is, however, useful. The main course must be, and must remain, that in morbid histology. For this to be truly serviceable to the student, even if it be materially aided by the projecting of sections or micro-photographs upon the screen, there must be an abundant supply of demonstrators—one to every ten students—to advise, instruct, and superintend the note-books and drawings of the same.

I can but refer, in passing, to two other practical courses—that in clinical microscopy at the hospital or

^oAn admirable method of teaching "special" pathology has, I learn from Dr. Polk, been initiated at the Cornell Medical School. Arrangements are made whereby each special course in ophthalmology, laryngology, neurology, etc., is made complete in itself, by the physiologist giving a short course on the physiology, the pathologist upon the pathology, the specialist upon the medicine and surgery of the subject. In this way the fullest results are obtained with the least repetition and overlapping, or neglect.

hospitals, in immediate connection with the ward cases, and that in pathological chemistry. The former, while conducted in connection with the medical department, should equally be under the supervision of the pathological; it is so valuable a portion of the practical teaching. To give practical advice concerning the latter is difficult, owing to the lack in English-speaking countries of those devoting themselves to this branch of the subject. But, certainly, the chemist, who is not a medical man, and what is more, a trained "biologist," is not the right man to undertake the teaching of this subject, or, otherwise, it cannot in general be recommended that such teaching be conducted in the chemical department. Pathological chemistry gives so much promise of throwing, in the very near future, so much light upon pathology in general, that the time has come for greater activity in the teaching of this branch in immediate connection with the pathological department.

Post-mortem Room Teaching.—This is capable of being made a far more vital portion of the course in pathology than it usually is. The mere instruction in methods is after all of very secondary importance, and it cannot be said that the weekly demonstration of material from autopsies—crushed, discolored, and removed from its relationships—is particularly satisfactory. But if the students, in batches, be made to attend the actual performance, and take an active part in the same, the case is very different—and more, if, after the method pursued by my colleague, WYATT JOHNSTON, such students be given each an organ, be made to describe its appearance, to make or study sections from the same, to study the descriptions given by standard authorities kept for this particular purpose in the adjoining laboratory, and noting the descriptions, to write a diagnosis stating how far the appearances correspond to, or depart from, the described state, then the *post-mortem room* becomes the first of all laboratories, the instruction there received the most valuable, whether from the point of view of pure pathology, or of the development of the good physician.

There are many details which might with advantage be taken up and discussed—among these, especially, the relationship of the bacteriologic and pathologic courses. Personally, I am strongly of opinion that in a medical school the teaching of bacteriology should be under the direct control of the pathological department, for there is no study which at the present time throws more light upon the causation and development of disease, none so powerfully contributing to the advance of pathologic science. The relative stagnation of those schools of pathology from which, in Germany, bacteriology has been divorced, is in itself an object-lesson. I cannot, however, enter into the *pros* and *cons* of the matter. Space forbids. It will, I trust, be held sufficient if here upon the broadest lines I have outlined the individual opinions of an individual teacher upon the teaching of his subject.

WHAT IS A DISEASE?

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THE meaning attached to the word "disease" has undergone a process of evolution during many centuries, while the science of medicine has emerged from darkness into light. The current conception of "disease" is indeed, and has always been, the central thought in the medical world. The time has come to give the word a definite value and meaning in accordance with the position the science of medicine now occupies. Not probably till her sister science—bacteriology—came to the help of medicine was it possible to do this; the task is now, however, simple.

The most direct method will be to take an example from the group of germ diseases. Under certain conditions the typhoid microbe becomes parasitic in man; pathological changes occur in consequence, which we include under the name of typhoid fever. In the absence of this particular microbe this disease, according to present knowledge, cannot occur. Here is a self-defined disease, and from it we deduce a general definition:—

The sum total of the pathological consequences resulting in a patient from the interference with his physiological state by a disease cause.

When the disease cause is of extrinsic origin, as in typhoid, the resulting disease is a self-defined entity. Lead poisoning and heat stroke may be cited as examples representing other classes of diseases due to causes of extrinsic origin. There is some apparent, but no real difficulty in defining the cause when this is of intrinsic origin, provided always that we make up our minds to confess ignorance where it exists, instead of concealing it in a cloud of words. Lithæmia, gout, and goutiness form at present a very vague symptom group. Define the cause as a sluggish metabolism resulting in ill-prepared waste products, and they are bound into a definable and treatable "disease." Some forms of insanity—hysteria, chorea, and asthma—are also caused by function failures of other kinds, and the failure of a function is just as definable a disease cause as the invasion by a microbe. The unphysiological stress that fractures a patella, ruptures an aortic valve, or that produces "athlete's heart," emphysema, or the bone changes of laborious occupations, is no less real or definable as a cause of disease than the ingestion of alcohol or lead. Incomplete development and prolonged wear and tear are accountable for other groups of diseases, properly so-called, that are familiar to us all. It is only necessary to cultivate a definite habit of mind to make the method that would result from the adoption of the above definition of disease perfectly plain.

At the risk of being thought presumptuous, I would say that it is on this foundation—the adoption of a recognised method—that the teaching and practice of medicine must in the immediate future be remodelled. Lengthy explanation and a multiplication of examples are equally unnecessary in addressing those whose lives are devoted to the study of medicine. The following table gives at a glance a rough idea of the shape a scientific classification of diseases would take:—

Diseases are due to causes of intrinsic, extrinsic and undetermined origin.

INTRINSIC.				EXTRINSIC.			UNDETERMINED ORIGIN.	
Wear and tear.	Incomplete development.	Function failure.	Unphysiological stress.	Parasitic.	Non-parasitic matters introduced into the economy.	Deleterious physical interference.	Time overgrowth.	Toxæmias of unknown nature.
Atheroma, chronic senile general paralysis.	Idiocy, cleft palate, congenital heart defects.	Gout, insanity, hysteria, lateral curvature.	Writer's cramp, athlete's heart, transverse fracture of patella.	Tuberculosis, malaria, hydatid disease.	Alcoholism, plumbism.	Wounds, heat-stroke, frost-bite.	Osteinoma, lipoma.	Spastic paraplegia, anterior poliomyelitis, cirrhosis of kidney.

There are clearly some diseases, though not a great many, the causation of which is still in doubt. Carcinoma is an example of one such class. Cirrhosis of the kidney—when not part of gout, lead poisoning, or other already-defined disease—cirrhosis of the thyroid leading to the symptom group, myxœdema, the changes in the cord resulting in idiopathic spastic paraplegia, and many other similar conditions in various organs, are probably all parts of toxæmias, whose true causation will, let us hope, soon be cleared up. It is in such cases that the "frank confession of ignorance which takes us a long way towards enlightenment" would be such an advantage and such a relief.

At present the lack of one uniform method in medicine leads to an utter want of uniformity in text-books and all other means of instruction. It is little exaggeration to say that "diseases"—the current coin of our science—are at present arranged and valued rather to suit the speciality of the teacher than to aid the comprehension of the student. Our pathological museums are chaotic, and therefore repellent to the student. Medicine is a science without a method, and until our leaders adopt one, we shall not take the place that belongs to us.

RELATION BETWEEN CAUSE AND EFFECT IN DISEASE.

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IN considering the pathology of diseases, we often have occasion to use the term "specific." It is well, then, to ask ourselves what this term means. A "specific disease" is literally a disease which has certain definite characters which distinguish it from all other diseases. There are two ways in which a disease may be specific—

1. It may be due to a specific causal agent.
2. It may be characterised by specific lesions.

It is obvious that our conception of any disease will differ according to which of these criteria we adopt as our basis of specificity.

For example, let us consider tuberculosis. If we adopt the anatomical basis—that is, if we consider tuberculosis to be a disease characterised by the presence of certain definite anatomical lesions called tubercles, we must include in this term, not only those cases in which the tubercle bacillus is the causal agent, but also other cases

due to other organisms such as aspergillus, and we must exclude all diseases not characterised by these lesions. If, on the other hand, we adopt the etiological basis, we must exclude all cases which are due to organisms other than the tubercle bacillus, and we must include cases in which the anatomical tubercles are not present; for the tubercle bacillus occasionally gives rise to diffuse instead of a nodular inflammation.

Thus the term "tuberculosis," which originally had a purely anatomical significance, has now come to have a meaning which is purely etiological, and in consequence those diseases which are characterised by anatomical tubercles, but which are not due to the tubercle bacillus, have been designated by the unsatisfactory term "pseudo-tuberculosis."

The same change is now unfortunately taking place in the meaning of the term "pneumonia." This originally meant a disease characterised by the anatomical condition of inflammatory consolidation of the lung. Now, however, there is a growing tendency to include pneumonia among the specific infective diseases, that is, among the diseases due to a specific micro-organism. If this is done, we shall have to describe pneumonia, not as a disease characterised by an inflammation of the lung, but as a disease which is the result of infection by the diplococcus pneumoniae, and we shall have to include in it certain cases of broncho-pneumonia, pericarditis, meningitis, otitis, empyema, etc., any of which conditions may be caused by the diplococcus with or without the characteristic inflammation of the lung. Judging from the analogy of tuberculosis, we may expect in the future to read about "pneumonia" of the meninges, ear, pericardium, etc., and we may also find the term "pseudo-pneumonia" introduced to describe those diseases characterised by inflammation of the lung, but not due to the diplococcus pneumoniae.

It is thus a great mistake to give an etiological significance to a term, the significance of which is purely anatomical. It is sure to lead to great confusion in medical nomenclature. With regard to this question of specificity, I should like to lay down the following two complementary laws:—

1. No specific causal agent always gives rise to characteristic lesions.
2. No specific lesion is always produced by a single definite causal agent.

Besides the examples given above, I will give the following :

1. The diphtheria bacillus usually gives rise to a fibrinous inflammation of the fauces or larynx with the production of membrane. Sometimes, however, the membrane is wanting, and instead of a fibrinous, there is a gangrenous or cedematous inflammation. On the other hand, fibrinous inflammation of the fauces may be due to other organisms than the diphtheria bacillus.

2. Congenital syphilis, if it affects the liver, usually gives rise to a pericellular cirrhosis. It may, however, give rise to other forms of cirrhosis, or to gummata. On the other hand, pericellular cirrhosis of the liver is occasionally found in patients presenting no other evidences whatever of congenital syphilis.

3. The streptococcus pyogenes in the subcutaneous tissue may give rise either to a suppurative or a non-suppurative inflammation, and suppuration may be produced by organisms other than the streptococcus.

4. Chronic alcohol poisoning, if it affect the liver, usually gives rise to a multilobular cirrhosis. It may, however, give rise to other forms of cirrhosis, or to fatty degeneration without cirrhosis. On the other hand, multilobular cirrhosis may be due to other causes than alcohol poisoning.

These examples might be multiplied indefinitely, but I have given a sufficient number to demonstrate the general truth of the two laws given above.

So far, I have considered only anatomical lesions. It remains to consider those lesions which may be termed functional, such as alterations in secretion or motor activity. At first sight it appears doubtful whether we can apply the laws to specific alterations in functional activity ; but, on closer investigation, it will be seen that, although there are apparent exceptions, yet there are numerous cases in which the laws hold. At any rate, the second law would appear to hold good in all cases.

5. Morphine, while usually producing narcosis, sometimes produces excitement. On the other hand, narcosis is produced by many agents besides morphine.

6. Lead poisoning, if it affect the central nervous system, may give rise to either excitement or dulness.

As an apparent exception to the first law may be mentioned the action of tetanus toxin on the central nervous system. It is quite possible, however, that the tetanus toxin may sometimes reach the central nervous system without producing the characteristic convulsions, since an examination for the tetanus bacillus is only made when the characteristic convulsions are present.

We have now to consider the following questions : Why does the effect produced by a specific causal agent vary in different cases ? The answer is to be found in the fact that no disease is dependent on one cause alone. The factors concerned in the production of a disease can be divided into (1) the essential factor, and (2) the adjuvant factors ; the essential factor being that without

which the disease could not occur, and the adjuvant factors being those which assist in production of the disease, but which in themselves are not individually essential.

In those diseases which are due to a specific causal agent, this agent itself is the essential factor, the adjuvant factors being those usually known as the predisposing causes. It will be found that, granting the access of the causal agent to the body, the adjuvant factors can be reduced to two in number : (1) The locality to which the causal agent is applied ; (2) the relative virulence (or dose) of the causal agent. By "relative virulence," I mean the virulence of the causal agent considered in relation to the susceptibility of the patient.

1. The Locality to which the Causal Agent is applied.

(a) An irritant applied to an epithelial surface usually gives rise to a catarrhal inflammation : for example, inflammations of the lung due to inhalation, or to the spreading of an inflammation along the air passages usually have the characters of broncho-pneumonia.

(b) An irritant applied to a surface covered by endothelium, usually sets up a fibrinous inflammation, such as is seen in pericarditis, etc.

(c) An irritant acting on connective tissue tends to produce a suppurative or an indurative inflammation, etc.

2. The Relative Virulence (or dose) of the Causal Agent.

The intensity of any disease varies with the virulence of the causal agent and with the susceptibility of the patient. Thus an irritant of low relative virulence, acting on connective tissue, gives rise to a productive inflammation : if the virulence is greater, the result is suppuration, and if the relative virulence is very great, the effect is a serous inflammation leading to spreading edema.

Conclusions.

From these facts I draw the following conclusions :

1. If a disease is due to a specific causal agent, it is not characterised by specific anatomical or functional lesions.

2. If a disease is characterised by specific lesions, we must not expect to find a specific causal agent. From this it follows that from the characters—histological or macroscopical—of the lesions we cannot positively affirm that the disease is due to a specific causal agent. The only means by which we can affirm this is to find and isolate the causal agent itself.

3. Variations in the characters of the lesions in diseases due to specific causal agents depend, not on the nature of the agent, but on the locality to which it is applied and on its relative virulence.

A MIRROR OF PRACTICE.

A CASE OF HERNIA INTO THE FORAMEN OF WINSLOW: CELIOTOMY: REDUCTION: DOUBLE ENTEROTOMY: RECOVERY.

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THE above case, from the rarity with which it occurs, renders it worthy of being recorded. In all cases of intestinal obstruction, it is extremely difficult to say, before opening the abdomen, what will be the nature of the lesion. It may be possible, from the acuteness of the symptoms, to diagnose whether the trouble will be found in the small or large bowel; but the probable cause is generally a matter of speculation, when there is no past history to help to indicate it. The history of our case is as follows:—

A lady, aged 47, living in New South Wales, was seen by Dr. GROVES, of Broken Hill, on May 12th of this year, and gave the following account of her illness. On Thursday, May 10th, she had been straining to pass a hard motion: from this day she had no further action of the bowels till after the operation, except that on Sunday, May 13th, she passed a little flatus. She was seen in consultation by Dr. MARTEN on Wednesday, May 16th, at 9 A.M.; she had then vomited three times, but only food which had just been taken, although she was constantly regurgitating a sour, white, frothy liquid from the mouth. Her general appearance and condition were good; her pulse 96, strong and regular, with no physical signs in the heart or lungs. Her urine had a good specific gravity, but showed a minute trace of albumen. The abdomen was slightly distended, but the patient was very fat; she complained of pain on deep pressure below the right costal margin in the nipple line, but there was no swelling to be made out, and there was no yellow colour of the conjunctivæ, and the urine was a good colour. She had already had copious enemata with belladonna and nux-vomica pills, and as the condition was not urgent, it was determined to try 5 grs. of calomel by the mouth, with a soap and water and turpentine enema.

The patient was seen again about 1 P.M., and there had been no result from the medicine or enema. The regurgitation from the mouth continued, and frequent borborygmi were audible, but they always stopped on the right of the middle line, below the rib-cartilages, where there was the slight tenderness previously described. A turpentine and thin starch enema was ordered, with repeated doses of sulphate of soda and magnesia.

At 8 P.M. the patient was decidedly worse, vomiting was becoming frequent, the abdomen was distending and becoming hard, so it was decided to do an exploratory celiotomy the following morning if no relief had been obtained during the night.

On May 17th, at 9 A.M., as the symptoms had increased during the night, the patient was put under the influence

of chloroform by Dr. THOMSON. Dr. MARTEN, with the assistance of Drs. GROVES and MACKAY, made an incision in the middle line below the umbilicus large enough to admit the hand; and on opening the peritoneum, dark, red-coloured serous fluid escaped. The small intestines were very much distended and injected, and immediately came out of the abdomen and were received by Dr. GROVES into a hot sterilised towel. The sigmoid flexure and descending colon were empty, the cæcum and ascending colon were enormously distended, and on being followed up the distended transverse colon was felt to pass under the liver and under a band, which, although not apparently tight, was compressing the bowel. The gut could be easily withdrawn, and the band was found to be the front wall of the foramen of WINSLOW, into which two fingers could easily be passed, and the hepatic artery could be felt pulsating in the front wall of the aperture. The small intestines were too much distended to be returned to the cæcum without much bruising, so a hole was cut in a sterilised towel and a knuckle of the ileum passed through this, and a small incision made in the free edge of the bowel parallel to the course of the vessels. A large amount of flatus and liquid fæces were allowed to escape and the wound closed with two LEMBERT'S sutures. This allowed the small intestines to be easily replaced, but left the cæcum and ascending colon still greatly distended, and it was decided to perform a temporary enterotomy, as it was feared that the over-distended bowel might not recover itself unless relieved, and perhaps, where compressed, it might be so paralysed as to prevent the contents passing onwards. This was done by stitching a small area of the cæcum to the lower angle of the wound, and closing the upper part of the abdominal incision in the usual way. The stitched up cæcum was then opened, and a No. 12 India-rubber tube inserted and carried to a bottle; much liquid fæces and flatus immediately escaped. The patient took the anæsthetic remarkably well, and before leaving the table Dr. THOMSON administered a hypodermic injection of ½ gr. of strychnia. The patient recovered well from the anæsthetic and suffered very little from shock. She vomited about half a pint of foul-smelling, dark-brown fluid soon after being returned to bed.

At 5 P.M. she was cheerful, had passed a good deal of flatus by the tube, and some liquid fæces were drawn off with a syringe.

At 8 P.M. she was decidedly better, and passed more wind and fæces per tube.

On May 18th, at 9 A.M., Dr. GROVES noted that the patient had had a very good night, she had passed wind and some motion per rectum, and a good deal of both (very stinking) by the tube leading into the cæcum.

On the morning of the 19th she tried to get out of bed, but otherwise progressing favourably, and continued to pass wind and fæces per rectum. There had been no vomiting since recovering from the anæsthetic and the abdomen was keeping flat. She continued making satisfactory progress, and on May 27th Dr. GROVES removed the tube and closed the opening in the cæcum by means of a pad and collodion, as flatus and fæces passed freely by the rectum.

On June 7th she was allowed to get up, faeces still coming through the caecal opening, but in diminished quantities.

The patient came down to Adelaide on June 20th with a view to having the faecal fistula closed, but as she occasionally had attacks of distension of the caecum followed by a free discharge of liquid faeces through the opening, it was decided to leave it as a safety-valve, as it gave rise to very little trouble, generally going for days without discharging either wind or faeces and only admitting a fine probe. The patient herself preferred to keep it as it was, and she was probably wise, as it not only anchors the large bowel and may prevent the the colon again going into the foramen of WINSLOW, but leaves a ready escape if she should again become subject of obstruction. The patient returned home in excellent health and spirits and has remained well since.

We feel sure that this was a case of hernia into the foramen of WINSLOW from the way the large bowel could be traced into the opening under the liver, especially as the large vessels could be felt beating in the front wall of the opening.

The condition is a rare one, as TREVES in his "System of Surgery," 1896 edition, says, that eight cases at least have been reported. He reports an unsuccessful case in a clinical lecture in the *Lancet* for October 13th, 1888.

The hernia may have been one of the rare varieties described by Sir ASTLEY COOPER, in which the bowel becomes nipped in one of the various peritoneal fossae, but we do not think it was from the situation in which it was found, and the presence of the artery in front. As a rule, the symptoms are pretty acute, and follow either a full meal or some straining action, probably in our case the straining at a stool on May 10th. Very little of the gut can have got through, and it was readily reduced; whereas, in TREVES' case, a large portion of the colon had passed into the lesser peritoneal cavity, and it was impossible to reduce it.

The only other point we wish to draw attention to is the double enterotomy. We think there is far less danger in opening the small intestine and letting out its fluid contents and flatus than in trying to force back the already over-distended small bowel; anyone who has tried to do this knows what an amount of pressure is required, and how much damage must ensue to the bowel. The opening into the caecum probably had a great deal to do with the successful result; the tremendously distended condition would probably lead to paralysis of its coats, and although the constriction was removed, we think it is doubtful if the bowel could have driven along its contents. The temporary enterotomies are greatly favoured by CRIPPS in his "Abdominal Surgery," and it certainly, to our minds, produced wonderful results.

It may be thought by some that we were unorthodox in giving purgatives, but there might have been simply a focal infection, and as the symptoms were not urgent, and we were prepared to explore if no relief followed these measures, we probably acted wisely. This was a case in which Mr. JONATHAN HUTCHINSON would have resorted to abdominal massage (and injections with long

tubes, whilst the patient was deeply anaesthetised, most likely with a highly satisfactory result; but being absolutely in the dark as to the cause of the trouble, we felt perfectly justified in making an exploratory incision.

Since writing the above notes the patient had another attack of obstruction, attended by vomiting, and the faecal fistula opened and discharged liquid flatus and faeces. The obstruction relieved itself whilst taking a journey to Adelaide, and probably the shaking of the train had something to do with the result.

CAESAREAN SECTION: DEATH.

REPORTED BY A. N. TORPY,

Bai Mollabai Hospital.

K. I., aged 18 years, primipara, was admitted to the Bai Mollabai Hospital for prolonged labour (duration of labour being four days prior to admission), at 12-45 P.M. on the 10th January 1901.

Menstrual History.—Menstruation began at the age of 11; type 30 days; duration 3 days; quantity small.

Obstetric History.—Nil.

Examination of the Abdomen.—Circumference of the abdomen $28\frac{1}{2}$ inches at the umbilicus; height of the fundus 11 inches; size of the tumour 11×12 inches.

Direction forwards and in the left oblique. Head of the foetus felt to the right side of the middle line in the hypogastrium. Fetal heart sounds heard half an inch above the umbilicus and to the right of the middle line.

Pelvic Measurements.—

II Cr. 8" II Sp. $7\frac{3}{8}$ "—Inter-trochant $8\frac{1}{2}$ ".

Ext. Conj. 6", Diag. Conj. 2", True Conj. 8".

External oblique Diameter.—

- | | |
|---|-------------------|
| 1. Right Post. Sup. Spine to the Left Pubic Spine | 6". |
| 2. Left " " " Right " " | $5\frac{1}{2}$ ". |
| 3. Right " " " Left Isch. Tub. | $4\frac{1}{2}$ ". |
| 4. Left " " " Right " " | 5". |

Operation.—The patient's abdomen and back being well rubbed in with turpentine, was washed with soap and water twice; and on being given the final wash, the part was covered over with a large strip of carbolic lint, which was again covered over and kept *in situ* per a broad flannel binder.

On arrival of the obstetrician, a P. V. examination was made, the result being admittance of one finger only: the patient was then anaesthetised with chloroform, the part uncovered and a bi-manual examination made. An incision was then made with a scalpel, commencing about 2 inches below the xyphoid cartilage and along the linea alba; on reaching the umbilicus the incision was carried around it, to meet again in the middle line (the piece of skin and fascia being removed), and thence carried down to within an inch of the pubes, when the intestines protruded and the bladder was exposed; the incision was then extended upwards for about $1\frac{1}{2}$ inches, the structures comprising the linea alba divided, and the peritoneum reached, which was found to be extremely thin; it was then divided by means of a director and scalpel, bringing the uterus into view; the first

notable feature presented was that of its anterior surface being especially closely covered with large sinuses distended to about the thickness of a finger. The uterus was then brought out of the abdominal cavity, and its appendages brought into view; the ovaries were found to be abnormally small, being about the size of a small bean. (Length $\frac{1}{2}$ inch, weight 12 grains.) The surgeon then decided on ligaturing the appendages, but on seizing the broad ligament and passing a sinus forceps through its membranous portion, one of the large sinuses was nipped, which resulted in profuse hæmorrhage, so two hæmostatic forceps were applied and left thus.

The uterine vessels being seized by the first assistant, the uterus was opened anteriorly per a scalpel, the slight bending being throughout swabbed per large strips of not carbolised lint, and when the opening was sufficiently large the foetus was extracted, a little difficulty being experienced in the extraction of the head, which was tightly fixed at the brim. Though the placenta was attached anteriorly, the hæmorrhage was not as profuse as might have been expected.

On extraction of the foetus, the membranes were found to be adherent in places to the uterine wall, necessitating the same to be torn away. The uterine cavity was next swabbed with large pieces of lint soaked in hot H. P. lotion, and the places where the membranes had been adherent were well rubbed with the same.

When thoroughly cleansed, the two uterine walls were brought into apposition and kept in contact per 17 catgut sutures (the method adopted being throughout the whole thickness of the uterine wall); on its completion, the appendages were respectively seized, a sinus forceps passed through the membranous portion, and two medium sized silk sutures applied on either side of the broad ligament, when the ovaries together with a part of the appendages were removed.

The abdominal cavity was next thoroughly cleansed with pieces of carbolised lint on handles, and when sufficiently done, the abdominal flaps were brought together and kept in contact per 22 silkworm gut sutures (the method adopted being through the whole thickness of the abdominal wall including the peritoneum), *vis.*, the through and through method; the few irregularities and gaps were next attended to, and, when complete, iodoform was liberally dusted over almost the whole of the abdominal surface, and covered over with gauze, thick pads of absorbent cotton, and kept in position per a belly bandage. The vagina was next swabbed out, iodoform dusted over and covered with a pad.

The operation lasted for an hour and five minutes, exclusive of the time taken up for the application of dressings. The patient bore it very well, considering her low state; she was then given an hypodermic injection of ergotin grs. ii and strychnine m $\frac{v}{v}$, and carried to her cot, which stood beside the operation table.

AFTER AND SYMPTOMATIC TREATMENT.

11 A., 8 a. m.—Severe vomiting of a brownish-looking substance.

R. Aëoli Borici ... grs. iv.
Aqua ... oz. i.

Mft. Lotic; equal quantity to be mixed with warm water and stomach irrigated twice daily.

10-30 a. m.—Stomach irrigated.

12 Noon.—Temperature 101° F.

1 p. m.—Nutrient enema; catheter passed; no urine drawn off.

1-30 p. m.—Vomiting very severe.

R Injection morphinæ ... gr. $\frac{1}{2}$ hypodermically.

2 p. m.—Temperature 101.6. Pulse 130. Respiration

28. Patient under influence of injection.

4-30 p. m.—Temperature 105.8. No vomiting since injection. Patient still under influence of injection. Nutrient enema retained.

6 p. m.—Catheter passed; no urine drawn off.

7 p. m.—Temperature 105.2. Pulse 146. Respiration 30. Nutrient enema.

10 p. m.—Temperature 106.2. Pulse running. Patient is sinking. Catheter passed and 5 ounces urine drawn off.

10-30 p. m.—Patient sinking.

11 p. m.—Patient dead.

Cause of Death.—Exhaustion from prolonged labour.

Baby:—

5 p. m.—Working into convulsions. Shrieking.

R Pot. Iodidi ... gr. $\frac{1}{2}$.

Pot. Bromidi ... " i.

Chloral. Hyd. ... " $\frac{1}{2}$.

Syrup ... dr. $\frac{1}{2}$.

Aq. Anethi ... " $\frac{1}{2}$.

Mft. Every third hour. Hot bath. Cold to head.

8 p. m.—Still working into fits.

10-30 p. m.—Baby dead.

Cause of Death.—Convulsions.

Remarks:—From the measurements of the pelvis given above, it will be seen that in this case we had to deal with one of extreme pelvic contraction, the true conjunctival diameter being an inch, and so no other means could possibly have been adopted except the one chosen for delivery.

And as regards the operation, it might be stated that after the elaborate display of instruments, &c., it will be surprising to note that, with the exception of the under-mentioned, *vis.* :—

Scalpel,	Hæmostatic forceps,
Dissecting forceps,	Scissors,
Director,	Sponge holders,
Sinus forceps,	Needles,

none of the others were utilised.

PSOAS ABSCESS: INCISION: EXHAUSTION BY CUPPING: RECOVERY.*

UNDER THE CARE OF LIEUT.-COL. CHAS. MONKS, I. M. S.,
European General Hospital, Aden.

T. T., a Greek male servant, from Mombassa, came to Aden for treatment, and was admitted to the European General Hospital on May 25th, 1900. He was in an extremely emaciated, feeble condition, and was found to have a psoas abscess, from which he had been suffering

*Reports on Medical and Surgical Practice in the Hospitals and Asylums of the British Empire.

for some two months. There was a fulness above POUPART'S ligament on the right side, pain radiating from the lumbar region into the thigh, hip, and knee, and contraction of the thigh on the pelvis, with inability to extend it.

Hectic fever and night sweats were present. His condition was so low that it was considered inadvisable for the moment to adopt any surgical measures, but as he continued to lose ground, it was decided to open and drain the abscess by an incision over the fulness above POUPART'S ligament. This was done on June 4th. About two pints of thin pus came away at once. The discharge slowly diminished, and his general condition improved for about a month, when fever reappeared and the discharge increased, the quantity coming away being about two ounces daily. The abscess cavity had been washed out several times with 1 in 1000 perchloride solution, and had also been treated with injections of ether and iodoform.

On July 23rd—that is, nearly two months after admission—seeing that the cavity showed no signs of drying up, I placed a dry cup over the opening, exhausting it in the usual way. About an ounce and a-half of pus flowed into the cup. It was of a deep-red colour, due to bleeding from the granulation tissue about the opening. The cup was left on two hours, and after removal the opening was hermetically sealed with collodion and lint. The dry cupping was repeated the next and following days for the same length of time (two hours), the sealing being first removed and afterwards replaced. On each occasion a smaller quantity of matter was abstracted, and on the last extremely little discharge entered the cup. After the second application the temperature, which had been 101° to 102°F. for some time, fell to normal. After the third and last application of the cup and sealing of the wound as before, the temperature never rose again, and the patient walked out of hospital on August 7th—that is, sixteen days after the dry cupping—with the abscess healed and his general health much improved.

Treatment of Consumption at Home.

JOSEPH EICHBERG (*Medical News*) states that all therapeutists in the pursuit of the specific idea seem to have lost sight of the idea that pulmonary tuberculosis in the only forms which are amenable to treatment, *i. e.*, in its chronic forms, is always either a mixed infection, or a process so limited in its distribution that natural safeguards will surround the tuberculous area with an investing capsule, and thus make it harmless. The treatment of consumption may be properly classified as the specific, the climatic, the dietetic, and the hygienic. It is fair to presume that the search for specifics is not yet done, nor likely to be given up; but the patient's safety probably does not lie in that direction. The most noteworthy feature in the reports of recent studies is the uniformity of success under climatic conditions the most diverse. We may safely feel that we are not of necessity bound to any climate or altitude. The patient must live out-of-doors. Next to good air we place good food and of this there must be an abundance. The patient should be steadily encouraged to eat more than he wants. Cream and butter should be introduced into as many dishes as possible. The third feature is good rest. It is a good rule for the patient to take no exercise until there is no fever. All sources of excitement and worry should be eliminated. The patient should sleep as much as he chooses. The fourth factor is good cheer. The moral influences surrounding the patient are all-important. Medicines from the shop really do not enter as a necessary part into his plan of treatment. The various symptoms may, however, be treated by the well-known remedies. The ordinary hygienic rules should be carefully observed. All cases, even the most desperate, are suitable for this home treatment.

Indian Medical Record.

27th March 1901.

THE PRACTITIONER'S DUTY IN THE TREATMENT OF ACUTE INTESTINAL OBSTRUCTION.

DR. A. ERNEST MAYLARD, ESQ., M.B. LOND., F.R.C.S., Glas., Surgeon to the Victoria Infirmary, Glasgow, and Examiner in Surgery to the Victoria University, Manchester, contributes a paper to the columns of *The Practitioner*, containing some interesting advice to general practitioners in the treatment of acute intestinal obstruction, referring briefly, at the same time, to such other conditions as through similarity of symptoms demanded notice. We summarise. Little more was probably new known than formerly of the pathology and differential diagnosis in connection with this subject. Whatever advance had been made was mostly, if not entirely, along the line of treatment. Text-books, by the clear and systematic manner in which they set out the causes, etc., made diagnosis appear an easy matter, but when a practitioner was confronted with a patient suddenly prostrated with an acute seizure of excruciating abdominal pain, he soon discovered that he was face to face with a condition or conditions that fairly baffled his faculties of diagnosis. The first question, under such circumstances, was to consider whether the case was a grave one. If so, the early symptoms (in the proper treatment of which so much recent advance had been made) were, as a rule, a rapid small pulse, pinched and pale face, listless eyes, forehead bathed in perspiration, features generally indicative of suffering, temperature either subnormal, or a degree or two above normal, surface of body chilled, abdomen rigid and painful, and vomiting. Severe colic—renal, biliary or intestinal—did not proportionately affect either the vascular or the nervous system. It should not, however, be inferred that there was any hard-and-fast line always between the symptoms of serious and non-serious cases. As a rule, the sooner the initial symptoms the greater was the gravity of the case. The shock to the general system following the sudden onset of acute pain should always be allowed to pass before anything operative was contemplated. The next step, of an attempt to ascertain the cause, was often next to impossible. Perforation with peritonitis or appendicitis or perityphlitis, or ruptured ovarian cyst, or twisted ovarian pedicle, or intraperitoneal hemorrhage, or thrombosis of the mesenteric vessels, all presented a similar train of symptoms. But the symptoms met with in any one of these complaints had been very aptly designated by GUSLEY "peritonism," and while this term did not commit to the assumption of any specific cause for the symptoms, it, nevertheless, indicated that the cause, whatever it was, was of the gravest possible nature. The practitioner then had done his duty, so far, well, when he had clearly diagnosed that his patient was suffering from peritonism, for in that event, the abdomen must be opened. Any clue as to the cause was only useful, in that it made the operation easier and the procedure to be adopted more direct; but any

endeavour to ascertain a cause should on no account create delay, more especially as it was well known that in the majority of cases of acute intestinal obstruction the cause of the obstruction was not discovered until after the abdomen had been opened. Delay not only enhanced the local damage, but favoured the development of the still greater ill dependent upon the formation and absorption of toxic substances (toxæmia). Toxæmia was intensified also by the administration of opium so often given for the relief of pain, for opium checked secretion, especially of the kidneys, and tended still further to hamper the efforts of the excretory organs in getting rid of the noxious products which were increasingly being poured into the circulation. The smallest quantity of morphia might be permitted to lessen the pain, but with the object of waiting for further developments, but to tide the patient over the period prior to operation. The first duty then of the practitioner was to duly recognise the gravity of the initial symptoms, irrespective of the cause from which they arose, and then to lose no time in preparing for those operative measures, the early employment of which would alone save life.

Treatment.—In order to obtain good results, relief should be afforded within a comparatively short time from the onset of the acute symptoms—from three to six hours. What operation should be performed? For those who were not hospital surgeons, nor so located that they could obtain the assistance of such, and who might not be surrounded by conditions which would admit of their executing the most approved and complete methods of operative treatment, the author advocated, in acute obstruction, that the colon should be opened in the left lumbo-iliac region when the obstruction is known to be in the rectum, and in the right lumbo-iliac region, when it was thought to be somewhere in the large bowel between the rectum and the cæcum, and the contents allowed to freely escape. Any subsequent treatment of the artificial anus or of the seat of the disease could be left for the operating surgeon, as the patient in the course of ten days or so would be able to be removed to any distance where the needful skill and treatment could be obtained. In a case of acute intestinal obstruction from some cause not ascertainable, NELATAN'S operation was the proper one: an oblique incision about a couple of inches long through the abdominal parietes in the right iliac or inguinal region: the distended gut presenting is carefully secured by stitches to the edges of the parietal wound, and the bowel opened by a small incision. The reasons for these cases ultimately recovering was probably to be found in the altered conditions brought about by the relief of distension of the bowel and other congested states of the involved parts. Here, again, the practitioner was in the position of doing what he pleased regarding any future treatment required. In a supposed case of perforation of the stomach or some part of the intestinal canal, the matter was far more difficult. It was easy to lay open the abdomen, but it was another thing to do it. There was the inevitable fatal aspect of the case if nothing was done, and yet what had to be done was usually of such a character that the necessary requisites were neither possessed by, nor indeed capable of being in the possession of, the practitioner. It was quite impossible to lay down any concise and simple directions for the practitioner in such cases. He must be guided by what he finds on opening the abdomen, and must even be prepared to open the abdomen from the ensiform cartilage to the pubes, or by a vertical incision to which was added a transverse one. The practitioner was seeking to save a life that was almost inevitably doomed, and it was not special skill, so much as painstaking work that would tell, and no man need be devoid of that. Should there have been delay in a case of obstruction, and the patient

vomiting fecal matter, before operating it was advisable to wash the stomach out thoroughly, and the large intestine by an enema, which helped in the removal of the toxic material within the cavity of the distended gut, and also to give a nutritive enema containing an ounce of brandy, and a subcutaneous injection of 10 minims of liquor strychnini. On opening the abdomen the distended bowel at once presented. A loop was withdrawn and placed in charge of an assistant, who so held and guarded it that, after an incision, the contents flowed into a receptacle at the patient's side. The operator continued to withdraw the distended coils, which a second assistant guarded and kept warm with cloths soaked in hot normal saline solution. The cause of obstruction was then sought for, dealt with as required, and returned to the extraverted intestines which the operator proceeded to empty by running them between his fingers and squeezing out the contents. If one incision was not enough, another should be made. The chief object was to completely empty the gut of all its churned up and fermented material. The evacuator incisions closed, the bowels could usually easily be returned. By some it was advised first to seek for the obstruction, and, after dealing with it, to then empty the bowels. The author believed there was an objection to this. While the distended intestines were within the abdomen, they were under considerable pressure exercised by the abdominal parietes: when, however, the abdomen was opened, this pressure was relieved, and still more so when the bowel escaped outside the cavity. It was quite possible that one of the reasons, though not the only one, for the frequently paralysed condition of the bowel wall was over-distension. It was a bad look-out when the bowel, after it was emptied, showed no signs of contracting, and looked, or rather felt, something like a piece of wet chamois leather. Now, when the bowel was allowed to escape before tension had any chance of being relieved, the gas within the gut, previously under pressure, expanded, and so the visceral parietes were subjected to a still further paralyzing effect. Hence the author's preference for first opening the presenting coil. In cases of perforation, the important question was, how best to remove the escape of foreign matter? Some preferred to wipe away the extravasated material, others to flush with hot normal saline solution. Both were suitable in suitable cases, thought the writer, and the practice should be determined by the nature and extent of the extravasated material, and by the amount of purulent peritonitis which might co-exist. When used, it was useful to leave a pint or so of the saline solution in the peritoneal cavity, as it tended to dilute whatever septic material was left, and thus enabled the great absorptive living membrane of the abdomen to take it up and discharge it into the circulation for elimination by the great excretory organs. In all cases where peritonitis had set in, the author believed in the efficacy of half an ounce of sulphate of magnesia introduced into the bowel by enema. It tended to produce watery evacuations, and this meant that a depletory effect was exercised upon the engorged and inflamed vessels running in the peritoneal lining of the bowel wall.

THE SURGERY OF THE STOMACH.

DR. ALBERT CARLESS, M.S. (London), F.R.C.S., Surgeon to King's College Hospital and Teacher of Operative Surgery in King's College, London, contributes a paper to *The Practitioner* on the Surgery of the Stomach. We give the essentials. The author discusses the enormous advances made in this subject in recent years—gastrostomy, gastrotomy, gastro-enterostomy, gastroplication, gastropexy, gastrectomy partial or complete, pylorotomy, pyloroplasty, and not a few others: only a reference to some of the more recent developments was attempted. The writer emphasised the necessity in all cases of persistent gastric trouble, of ascertaining the cause:—(a)

the amount and character of the vomit should be investigated: (b) the exact time that the act occurred after food: (c) the ejecta be microscopically examined: (d) the gastric contents withdrawn and analysed: and (e) the motor functions of the stomach examined to see whether or not the contents were passed onward in their normal time. One of the most interesting facts which had been brought to light through recent advances was that the function of the stomach as a digestive organ had been considerably overrated, and that digestion could proceed without it. The necessary deductions to be drawn from this fact were twofold, viz: (1) That total removal of the stomach in suitable cases need not be feared; and (2) that in conditions of chronic gastric irritability and disease the nutrition of the individual will not suffer if the organ is encouraged to empty itself more rapidly than usual, as by such a surgical procedure as gastro-enterostomy.

Total Gastrectomy—Was only required for carcinoma. On the whole, about 15 cases had been reported with five deaths—a very satisfactory result. Death in all cases was due to shock. The operation was long and troublesome, but not extremely difficult to anyone in the habit of dealing with the intestines. The great essential was to guard the patient from shock, and to that end a hot-water table should be used, whilst the patient's extremities are wrapped up carefully in cotton wool. Union between the lower end of the oesophagus and the duodenum or jejunum was usually effected with a MURPHY button, as being more expeditious than other plans. A second danger arose from the fact that the vagi are both divided as they emerge through the diaphragm, and that the solar plexus is rather roughly handled: the result was that in some cases the heart's action has been accelerated and the patient has died from sheer cardiac exhaustion. It was important therefore to stimulate the patient freely and to retard the heart's action by hypodermic administration of digitalin. Fluid food might be administered by the mouth at the end of two or three days, but no solids until the MURPHY button had been displaced, which usually happened about the tenth day.

Gastro-enterostomy—Was now often undertaken simply for the purpose of assisting the stomach to empty itself as rapidly as possible. It could be recommended under the following circumstances:—(1) When a patient with gastric ulcer had been carefully dieted and given every chance to recover, and yet the symptoms persisted. If there were a slight stricture of the pylorus, pyloroplasty was very tempting, but the general trend of opinion at the present day was that gastro-enterostomy was a better operation than any directed solely to the pylorus. Where there was simply a chronic ulcer with no stricture, excision was the alternative to gastro-enterostomy: but in the majority of cases gastro-enterostomy was to be preferred. (2) It might be utilised in the treatment of acute or chronic hæmorrhage in connection with gastric ulcer: the former was best treated medicinally. The chronic forms were (a) those where to the bleeding are superadded the phenomena characteristic of pyloric obstruction, and (b) those where there was no indication as to the locality of the ulcer. In (a) it was quite justifiable to explore the region of the pylorus, and, if the ulcer was found there, to cauterise its base. (3) It was probably the best operation for pyloric stenosis due to gastric ulcer, and possibly the only feasible proceeding when stenosis arose from extrinsic causes such as contraction of adhesions formed in connection with an inflamed gall-bladder. (4) In pyloric cancer. (5) In atonic dilatation of the stomach after a thorough course of lavage and medicinal treatment, the opening being made as dependent as possible. Some surgeons suggested stitching the stomach to the under surface of the diaphragm in such a way that the pylorus shall come to be its lowest point. This, however, was often not practicable, or, if possible, might lead to considerable

interference with other viscera: (6) In hyperchlorhydria or gastric succorrhoea, the rapid emptying of the stomach was most desirable, and in no way could this be better accomplished than by the formation of an artificial opening into the jejunum. The chief reasons, however, in the author's view, which should popularise this operation, was that gastric digestion was of little importance, and the improvement in the operative technique which had occurred mainly during the last decade, the most important of which perhaps lay in the substitution of the posterior method of operating for the anterior, i.e., one now united the small intestine to the posterior wall of the stomach through an opening in the transverse meso-colon. A cause of failure in many of the earlier cases was that the margins of this opening in the meso-colon constricted the band of union, but this was easily avoided by suturing down its margins to the posterior wall of the stomach. There had also been some difficulty in controlling the flow of bile through the artificial opening into the intestine, the downward drag of the gut tending to kink the two portions of the bowel and cause a spur-like projection of mucous membrane between them, which would hinder the passage of the duodenal contents into the jejunum, and direct them into the stomach. This was readily overcome by the adoption of the anastomosis suggested by ROUX, in which the jejunum was divided across about 6 inches from its commencement or a little lower: the lower end was then implanted into the stomach on its posterior wall, whilst the upper or duodenal end was implanted laterally into the wall of the jejunum itself. The author also mentions a few other important details: (a) the portion of the jejunum selected should be as near the upper end as feasible: (b) the opening in the stomach should be as near the great curvature and in as dependent a position as possible: (c) the two mucous membranes should be carefully stitched together, so as to prevent cicatricial contraction of the artificial opening. As regards the mortality, the figures published from time to time indicated that it varied inversely with the skill and practice of the surgeon, but in cases unconnected with malignant disease it ought not to exceed 10 per cent.

Gastroplication—Or a doubling of the stomach wall on itself, throwing it into a large horizontal fold, was often necessary when there was much atrophy of the muscular walls.

Gastrostomy—Was now practically free from mortality, if the case had been taken in time. There was danger of acute septic pneumonia following directly on the anæsthetic, particularly if ether were used, when the oesophageal stricture was very high owing to accumulated oesophageal mucus finding its way into the larynx and down the trachea. Cases of this nature had better be operated on under a local anæsthetic. As to the type of operation to employ, several excellent ones were described in text-books, and with care most of them gave good results. In the treatment of ruptures of the stomach or of perforating ulcers, the important point was to operate early, the incision being in the middle line above the umbilicus, and the perforation usually found near the centre or cardiac orifice. There never was any need to excise the ulcer: all that needs be done was to tuck in its margins and suture the peritoneum so as to bury it. If this were impracticable, it was wiser to fix the opening to the parietes and create a temporary gastric fistula. In some cases it might be advisable to insert an additional drainage wick just above the symphysis pabæ. The results now obtained were most satisfactory, considering that many of the cases were dealt with at a late period owing to delays in diagnosis. In conclusion, the author indicated that a more thorough investigation of all gastric troubles would be rewarded by the discovery more frequently of conditions which could be dealt with satisfactorily by operation, and cancer of the stomach would be a less frequent cause of death.

COMMENTS AND NEWS.

LUNACY IN INDIA.

THE *British Medical Journal* says:—The facts as regards the number and treatment of lunatics in India are remarkable. The census of 1891 revealed a proportion of 5 insane persons for every 10,000 of population, as against a corresponding proportion of 33 in England. Making all due allowance for the difficulties attending an accurate enumeration of this sort in such a country as India, including among these difficulties the probability that there is extensive concealment, there can be no question that the amount of lunacy there is moderate, and of this amount only a small fraction has hitherto demanded State interference. The majority of lunatics are detained and cared for at home, and there is no reason to believe that they are treated otherwise than humanely. Those of them who endanger the public safety and cause peril to life or property attract the attention of the police, and are removed and segregated. The voluntary consignment of troublesome lunatics to public asylums—there are no private asylums in India—is a rare occurrence. Lunatics who, having committed crimes, are found to be unable to stand their trial on account of their insanity, are necessarily detained in asylums until they recover, or for life if they do not recover; and prisoners becoming insane in jails are also transferred to asylums as long as their insanity lasts, unless their friends, on completion of their term of imprisonment, undertake the charge of them. A large number of the lunatics who cause trouble or danger are persons suffering from hemp intoxication, and these recover quickly.

Thus it happens that the number of lunatic asylums in India is very small, and the number of persons confined in them limited. For example, in the Province of Bengal, with a population of over 71 millions, there are only five public asylums, containing 902 lunatics, of whom about 60 per cent. are criminals and about 20 per cent. females. The policy of Government is to discharge patients who are harmless, and whose friends are willing to take care of them. The total number of inmates, therefore, does not undergo any increase—rather the contrary; but there is a tendency to slight increase in the number of so-called criminal lunatics. Indian asylums are very different places from English asylums. The construction, arrangements, and management are of a very simple kind, and the clothing, feeding, and treatment of the inmates are also less elaborate and costly.

The charge of these institutions has hitherto been committed to civil surgeons, who may or may not have made a special study of lunacy, and served in a lunatic asylum at home before entering the service, and the appointment is held in addition to other duties of a multifarious and onerous description. The establishment consists of a hospital assistant, a native or Eurasian overseer, and a staff of attendants and nurses. Employment is the chief moral agency used, and recreations of a simple and suitable kind are provided. Both the Government and the medical executive have endeavoured to render these places as comfortable and useful as possible, and a recovery-rate of 10 to 15 per cent. of average population attests considerable success. The usual death-rate is about 9 per cent., which cannot be considered excessive. In the early days of British rule in India, lunatics were confined in jails or in special wards attached to them, and this practice is still the rule in some native States. Latterly it has become

apparent that reform is needed as regards the supervision and management of these institutions, and at the instance of Surgeon-General Harvey, the present Director-General of the Indian Medical Service, new arrangements have been sanctioned by the Secretary of State for India, and are to be adopted forthwith.

Under this scheme a few large central asylums are to be built and organised to accommodate the majority of the lunatics belonging to the several provinces and placed under the exclusive charge of specialists. In these asylums all the methods and appliances which have been found to be of service in the treatment of lunacy are to be put in operation. They will also serve as schools of systematic and clinical instruction in psychological medicine, asylum management, and treatment of the insane.

Arrangements have already been made for organising asylums of this kind in Bengal, Madras, Bombay, the North-Western Provinces, and the Punjab. Some of the existing smaller asylums will be closed, and others retained on their present footing for special reasons—geographical and other.

Selection to the charge of these institutions will not be necessarily limited to the Indian Medical Service, the prime consideration of special knowledge and experience being an indispensable condition. Many officers belonging to this Service have studied insanity and served in asylums before joining, and the new arrangements will present a new object of work and ambition to candidates. It is consistent with the history and traditions of the Service to believe that suitable and skilled men will be forthcoming. The pay of these appointments has been arranged on a liberal scale—ranging from Rs. 600 to Rs. 1,400 a month, according to length of service, with free house and the privilege of engaging in consulting practice. These rates are about 50 per cent. higher than full regimental pay, and ought to attract good men.

This new departure is an excellent one from every point of view, and will, we hope, prove the commencement of a thorough revision of the conditions and remuneration of the medical services in the Indian Empire.

TO EXCLUDE THE QUACK IN AMERICA.

THE *Medical News* says:—A new medical Bill has just been introduced into the Senate of New York State, which demands the attention of every practitioner in the State. After certain minor modifications, it should, we believe, receive their earnest support. The text of the proposed Bill is as follows. The matter in italics is new:—

Section 1.—Section one hundred and fifty-two of chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three, entitled "An Act in relation to the public health, constituting chapter twenty-five of the general laws," is hereby amended to read as follows:—

Section 152.—Construction of this article. *Any person shall be regarded as practising medicine within the meaning of this Act who shall prescribe, direct, recommend, or advise, for the use of any other person, any remedy or agent whatsoever, whether with or without the use of any medicine, drug, instrument or other appliance, for the treatment, relief, or cure of any wound, fracture, or bodily injury, infirmity, physical or mental, or other defect or disease.* This article shall not be construed as prohibiting the service of any person in an emergency, or the domestic administration of family remedies; nor shall it be construed to affect commissioned officers serving in the United States army, navy, or marine hospital service, while so commissioned; or any one while

actually serving on the resident medical staff of any legally incorporated hospital; or any legally registered dentist exclusively engaged in practising dentistry; or any manufacturer of artificial eyes, limbs or orthopedic instruments or trusses in fitting such instruments on persons in need thereof when such artificial eyes, limbs or orthopedic instruments or trusses are prescribed by lawfully qualified physicians; or any lawfully qualified physician in other States or countries meeting legally registered physicians in this State in consultation; or any physician residing on a border of a neighbouring State, and duly licensed under the laws thereof to practise medicine therein, whose practice extends into this State, and who does not open an office or appoint a place to meet patients or receive calls within this State; or any physician duly registered in one county called to attend isolated cases in another county, but not residing or habitually practising therein. This article shall be construed to repeal all Acts or parts of Acts authorizing conferment of any degree in medicine, *sensu honoris*, or *ad eundem* or otherwise than on students duly graduated after satisfactory completion of a preliminary and medical course of not less than that required by this article as a condition of license.

Section 2.—This Act shall take effect immediately.

The Bill calls for little comment; its provisions are straightforward and its purposes plain. It is not special, nor class legislation; it does not seek to hinder legitimate competition; it is not meant to work hardship on any class, especially not the manufacturers of proprietary remedies, who seem to be arrayed against some of its provisions; it is simply a plea to protect the community from the quack and the charlatan.

"A law for the purpose of protecting the people from incompetent practitioners for medicine, which compels educated physicians to undergo examinations to demonstrate their ability and which cannot be enforced against quacks and charlatans—who, because they do not use drugs, claim they are not practising medicine within the meaning of the law—certainly cannot be said to accomplish the purpose for which it was enacted." Such are the provisions of our present medical law, and it is time that a more radical and perfect instrument should be placed on our statute books.

JACOB MEMORIAL FUND.

THE *Medical Times and Hospital Gazette* says:—It has come to the knowledge of a few friends of the late Dr. A. H. JACOB, that owing to a long-continued period of ill-health and other causes, he has died leaving his wife and daughters insufficiently provided for. For over thirty years Dr. JACOB was one of the most earnest workers on the Council of the Irish Medical Association, and for the same period was connected with the Royal College of Surgeons, and at the time of his death was Senior Member of the Council. For many years he proved a fearless and able advocate of the rights of the Poor Law Medical Practitioners of Ireland in the effort to obtain for them an adequate salary, security of tenure, and pension in old age. Dr. JACOB was an accomplished scholar and a vigorous writer, and grappled with his subject in a masterly and independent manner, and was so richly imbued with public spirit that, when advocating a cause he believed to be right, he absolutely ignored his own professional interest and his own personal welfare. Those for whom he did so much cannot soon forget him, and his memory will be long esteemed in medical and private circles in Ireland—not only for his eminent services, but for his upright and kindly disposition. The profession and the public who believe that the late Dr. JACOB did much to maintain the honour and dignity of the profession by his

voice and pen, have now an opportunity of helping materially his widow and daughters in a way in which he himself was not permitted to do, owing to ill-health and an unflinching life-long service in the interests of the profession. A Committee has been formed, with power to add to their number, for the purpose of collecting subscriptions for the "JACOB Memorial Fund," to which we hope wide and liberal assistance will be given. Cheques or Postal Orders may be sent to the Honorary Treasurer, Sir CHARLES A. CAMERON, C.B., 51, Pembroke Road, Dublin.

Many friends of Dr. JACOB in India will, we earnestly hope, respond to this appeal.

FRUIT BREAKFAST: ITS VALUE TO HEALTH.

THERE is a class of cases which makes the most enthusiastic doctor alive wish he had chosen any other vocation than medicine.

Patients with thick, non-circulating blood, torpid lymphatic and dormant secretions; patients with stiffened joints, gouty deposits, chronic neuralgias, torpid livers, uric acid kidneys, and the irritable nerve centres that go with them; these patients, and others who suffer from errors of nutrition, can be greatly benefited, not to say cured, by the simple dietetic procedure known as the fruit breakfast.

This means just what it says. Fruit, all the patient wants, and nothing else, for breakfast. No chops, bread, cereals, coffee, tea, or anything but fruit before twelve o'clock. By fruit is meant apples, oranges, and grapes. These should be of excellent quality. Preserved fruit juices do not answer as well, and no other kind of fruit compares in efficacy with oranges, apples and grapes. No sugar should be used on the fruit. Cooked fruit will not do.

Just what effect these natural fruit juices have on the blood is not easy to say, but they certainly do contrive to purge, purify and alter it for the better. Two months of the fruit breakfast will work a practical miracle in a body full of the morbid products of chronic disease. The patient feels lighter, more active and cheerful. The circulation is accomplished with less friction, and is better equalised. The glutinous quality of the blood has been overcome, and no longer paralyse tissue cells as molasses does the wings of a fly. Assimilation and elimination are better performed. The secretions are all of a higher physiological standard.

The difficulty is to get patients to refrain from eating all other food in the morning, and unless he does this, he will get little or no benefit. Habit is strong, and for some days the patient may feel a craving for the usual breakfast, a gnawing sense of dissatisfaction, but if he perseveres, this will gradually give way. The amount of fruit is not limited. He can eat all he wants of that.

No stimulants of any kind should be used while taking this cure.

The kidneys will probably need some treatment, having been so long abused. For this purpose, lithiated hydragene, in alternation with saunnetol may be employed until all symptoms of genito-urinary irritation subside, and the urine is normal.

It is not necessary that the fruit breakfast should be a permanent thing. Three months will put the system in excellent order, and then the patient may return to his former habits if he desires, making use of the fruit breakfast whenever the symptoms indicate that nutrition is again deranged.

CENSUS OF INDIA.

THE first totals of the Indian Census are published in the last Gazette. The figures of 1891 showed an increase over those of 1881 of 38.6 millions or 11.2 per cent.; those of 1901 only show an increase over 1891 of 6.9 millions or 2.42 per cent.

The following are the figures :—

	1901.	1891.
Males ...	149,906,349	144,768,327
Females ...	144,860,882	140,548,721
Total ...	294,767,231	285,317,048

The following are some details :—

INDIA.	1901.	1891.
Ajmere-Merwara ...	476,380	542,358
Assam ...	6,122,201	5,483,668
Bengal ...	74,713,020	71,846,961
Berar ...	2,752,418	2,897,040
Bombay (Presidency) ...	18,684,498	18,873,342
Burma (Total) ...	9,921,161	7,770,894
Central Provinces ...	9,485,318	10,784,294
Coorg ...	180,461	173,055
Madras ...	38,208,609	35,680,440
North-West Provinces and Oudh... 47,696,324	46,904,791	
Punjab ...	22,449,484	20,866,847
Baluchistan ...	810,811	27,720
Andamans ...	24,499	15,609
TOTAL PROVINCES ...	231,085,132	221,266,569

STATE OR AGENCY.

Hyderabad ...	11,174,897	11,587,040
Baroda ...	1,850,927	2,415,896
Mysore ...	5,538,482	4,943,604
Kashmere ...	2,906,173	2,543,952
Rajputana ...	9,841,032	12,016,102
Central India ...	8,501,883	10,318,812
Bombay States ...	6,891,691	8,069,298
Madras ...	4,180,322	3,700,622
Central Provinces States ...	1,983,496	2,100,511
Bengal States ...	3,735,715	3,296,379
North-Western Provinces States... 799,675	792,421	
Punjab States ...	4,438,816	4,263,280
Burma States ...	1,228,460	2,992
TOTAL STATE OR AGENCY ...	68,181,569	66,050,479

TOTAL INDIA ... 294,266,701 287,317,048

MEDICAL MEN MENTIONED IN THE CHINA WAR DESPATCHES.

THE *London Gazette* has the following Despatch relating to the relief of Peking :

INDIA OFFICE, November 6th, 1900.

The following Despatch has been received by the Secretary of State for India from Lieutenant-General Sir ALFRED GABLER, K.C.B., Commanding the British Contingent, China Expeditionary Force :—

The medical arrangements for the treatment, care, and removal of the wounded reflected great credit on Major Watson, B. A. M. C., and his subordinates. Not only were these arrangements sufficient for the British wounded, but he was also able to take medical charge of American, French and Japanese patients and to send them into hospital. CAPTAIN PETER, B. A. M. C., and Assistant-Surgeon FULTON, B. A. M. C., were in the advanced fighting line all day dressing cases under fire. They are both valuable officers, always cool and collected.

PERSONATION AT AN EXAMINATION.

THE *Medical Times and Hospital Gazette* says :—Recently at Dublin a man named JOSEPH HADDOCK was indicted at the Commission Court, before Mr. Justice HENRY, for fraudulently impersonating one ROBERT COOPER at the Conjoint Examination for the Royal Colleges of Surgeons and Physicians of Ireland, and for similarly impersonating ALEXANDER FIFE. The counsel for the accused raised certain legal points, but the jury found the prisoner guilty, the points raised being reserved. Such an offence as personation is a most serious one for the medical profession, and if the law is as pronounced by the learned K. C. who defended the prisoner, then the sooner it is radically altered the better. In fact, his opinion was to the effect that, "although they might censure a man for a lie they could not make him amenable by the law for it. Personation was the telling of the lie that a certain person was somebody else, but unless it could be shown that some act of fraud was perpetrated to the damage of some special individual, there was no legal criminal offence disclosed."

SERUM MYSTERY IN MILAN.

THE *New York Medical Record* says :—A curious case of poisonous serum is reported from Milan. Eight persons suffering from diphtheria died of tetanus after having undergone the orrhotherapeutic treatment. The authorities immediately closed the institute and prohibited the use of the serum throughout all Italy, pending an investigation by the Health Board of Milan and the Council of Hygiene in Rome. The directors of the institute in Milan called in all the flasks of serum which it had sent out, and destroyed all the materials for the different serums in process of preparation. The case puzzles the professors. They do not know yet whether the serum was contaminated by the presence of microbes of tetanus, or whether by some unfortunate accident anti-tetanic serum was used in the diphtheria cases with fatal effect.

REGULAR BREATHING IN BEGINNING NARCOSIS.

C. HOFFMANN emphasizes the importance of securing regular respiration while the first stages of anesthesia are progressing. Quiet and kindly encouragement of the patient are of great value, and the direction to count out loud often accomplishes the purpose, but a still more efficacious method is to have the patient begin with some number having three figures or more, and then count backward. The amount of mental concentration required to do this, as well as the act of pronunciation, insures deep regular respiration in almost every case.

PROFESSOR VON PETTENKOFER'S DEATH.

THE recent suicide of the famous physiologist and bacteriologist, Professor von PETTENKOFER, of Vienna, in his eighty-third year, has startled the whole scientific world. It appears that he had for some time previously suffered from attacks of hypochondria, due no doubt to cerebral changes of a senile character. So melancholy an end to a life made famous by its contributions to medical science has naturally inspired universal regret.

MEDICAL EARNINGS IN CHICAGO.

THE *British Medical Journal* says:—Dr. A. K. STEELE, of Chicago, who has taken some pains to ascertain the average income of doctors in Chicago, is firmly convinced that professional incomes are greatly over-estimated. He points out that the expenses of the practitioner keep pace with his increasing business. Larger incomes demand better consulting rooms, a finer house, more servants, more social duties, so that at the end of the year the balance sheet shows very little on the side of net profit. The \$2 to \$3 visit, the \$5 to \$25 (£1 to £5) consultation, the \$10 to \$30 (£2 to £6) case of obstetrics, and the larger fees provided for operative work in the fee table do not ensure large incomes for many in the profession. The first five to ten years' practice is usually a struggle for existence; the second ten years a competency or good living; and during the third ten years the practitioner is likely to be crowded out by the younger and more progressive element. Dr. STEELE said the practitioners in Chicago whose incomes from practice exceeded \$6,000 per annum could be counted on the fingers of one hand, and probably not more than a score exceeded £4,000 per annum. The income of the average practitioner varies from £900 to £200 a year. Specialists in diseases of the eye and ear, nose and throat range from £4,000 to £12,000; consulting physicians average £1,000 to £3,000; six leading physicians, £3,000 to £7,000; six leading surgeons, £4,000 to £12,000; six leading gynaecologists, £2,000 to £4,000; six leading specialists, £2,000 to £3,000; average surgeons, £600 to £2,000.

PROPOSED LEGISLATION AGAINST CHRISTIAN SCIENCE IN MASSACHUSETTS.

THE *British Medical Journal* says:—A Bill has been introduced in the Massachusetts Legislature which is aimed at faith curists, clairvoyants, and persons practicing magnetic healing. The object of the Bill is to have inserted in the present medical law (chapter 458 of 1894) a new section providing that "whoever, not being registered, shall advertise or hold himself out to the public as a healer of disease, or able to abolish disease or the symptoms of disease, or as competent to do surgery, or shall in any way treat or prescribe for the sick or injured for gain, shall be punished by a fine of not less than \$100 (£20) or more than \$500 (£100) for each offence, or by imprisonment in jail for three months, or both."

ELECTROCUTION IN ILLINOIS.

THE *British Medical Journal* says:—A Bill to make "electrocution" the legal method of execution in the State of Illinois was introduced into the Legislature recently by Mr. D. E. SULLIVAN, of Chicago. If the Bill becomes law, the death penalty will be administered in the Joliet Penitentiary, and the warden, or such assistant as he may appoint to officiate, will receive £10 for each execution. The method of death is thus specified: "When a defendant is sentenced to the punishment of death, the mode of executing the sentence must in every case be by causing to pass through the body of the convict a current of electricity of sufficient intensity to cause death, and the application of such current must be continued until such convict is dead." It is believed that this method of executing criminals in Illinois will not meet with favour among intelligent students of criminology, apparently because it is not regarded as likely to be so efficacious a deterrent as hanging.

SOME NEW SCOTCH LL.D'S.

The Senatus Academicus of the University of Edinburgh has offered the honorary degree of LL.D., to Sir John Williams, Bart., M.D., F.R.C.P., Lond., and to Dr. James Little, Regius Professor of Physic in the University of Dublin. The Senatus Academicus of the University of Aberdeen has offered the same degree to Professor Rudolf Virchow, Berlin; to Major Alfred W. Alcock, M.B., C.M., Aberd., Indian Medical Service, Superintendent of the Indian Museum, Calcutta, and Professor of Zoology in the Medical College there; and to Angus Fraser, M.A., M.D., Aberd.

SHORT ITEMS AND PERSONALITIES.

The Report on the working of Hospitals and Dispensaries in Mysore for 1899-1900, states that there were 134 hospitals and dispensaries in the State on 1st July 1900, including five new dispensaries opened during the year under review. The total number of patients treated was 891,508, of whom 419,796 were men, 188,862 women, and 277,850 children.

The Secretary of State has approved the annual grant to the Pasteur Institute, Kasauli, of Rs. 9,500 from the Government of India, which also places at the disposal of the Committee the services of a selected medical officer as Superintendent.

The distinction among animals of requiring least sleep belongs to the elephant. In spite of its capacity for hard work, the elephant seldom, if ever, sleeps more than four, or occasionally five, hours.

The Principal Medical Officer in India will soon select a batch of Assistant Surgeons for the Uganda Railway.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

NOTICE.

All members of the Indian Medical Association are kindly requested to send their names in full with their present addresses, clearly written, to the Secretary.

Members who have paid their subscriptions and who have not received the membership certificates are kindly requested to notify the same to the Secretary.

Subscribers are requested to communicate any temporary change of address not to the Office of this Journal, but to the post-office through which they are accustomed to receive their Journals.

The Indian Medical Association Provident Fund is now working. It offers a simple and safe form of Life Assurance to all medical men and women. Join at once.

The *Indian Medical Record* offers the following prizes:—Rs. 10 to Rs. 15 for a good Original Article; Rs. 5 to Rs. 10 for a good Clinical Report. Competitors must be subscribers to the *Record*.

Medical Appointments, Transfers, Exchanges are easily and cheaply effected through our special short advertisement page. See terms and apply at once.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Current Medical Literature.

MEDICINE.

New Treatment for Whooping-Cough.

DR. G. ARBOUR STEPHENS, having found that whooping-cough was almost invariably accompanied by soreness or pain in the ears, determined (*London Lancet*) to find out whether treatment applied locally might ease the pain or diminish the discharge, and by so doing modify or terminate the course of the disease.

The course of treatment decided on was as follows: He syringed out the ears night and morning with lukewarm boracic lotion of water, and applied to the meatus and tympanum a paint consisting of 23 grains of hydrochlorate of cocaine, 4 drams of glycerine, 20 minims of solution of perchloride of mercury, and water to 1 ounce. The result of this treatment was that in every case the patient was benefited and the whooping-cough was got rid of. In many cases, in addition to the essential symptoms of whooping-cough, there were present bronchitis, pharyngitis, or laryngitis. These did not, of course, yield to the treatment above described, and in some cases they persisted for several days after the "whoop" had disappeared. As has been often noticed by other observers, the whooping-cough followed in the wake of measles, and in those cases which did succeed measles, there was nearly always found a discharge which had continued from the prior attack of measles. In the first few cases he had some trouble in introducing such a novel form of treatment as a substitute for the more orthodox bottle of medicine, but having got the first few patients better, their friends and relations paved the way for the others.

The author gives details of eight cases in which, after being under treatment for a few days, entirely lost the bouts of "whooping," though in some cases bronchitis lasted for several days. As an explanation of the pathology of these cases, the author considers that there is a small local inflammation in the meatus starting independently of or succeeding to an attack of measles, and that this inflammation irritates the nerve filaments which are connected with the root ganglion of the vagus, and so stimulates the vagus itself in some or all of its branches. The laryngeal branches will account not only for the spasms, but also for the "whoop," by producing a temporary trophic lesion of the laryngeal mucous membrane against which the cold air, which is invariably drawn in through the mouth, strikes. He also thinks a similar trophic lesion of a temporary nature occurs in the stomach and lungs by a passing irritation of the vagus branches which results in the secretion of a large amount of mucus.

Dr. STEPHENS has made an attempt to cultivate some bacteria from the ear, but so far has not succeeded. There is one difficulty in the way of such cultivation, and that is, that in a large number of the cases the patients are dirty and live in dirty houses. However, whether the cultivation be successful or not, he has shown that by syringing and painting the ears a great improvement can be produced, which is, after all, of greater consequence to the little patients than the cultivation of any amount of germs.

Long Remissions in Epilepsy, and Their Bearing on Prognosis.

AT the annual meeting of the American Neurological Society, Dr. WHARTON DIXON, of Philadelphia, read a paper based on a study of twenty-four cases of idiopathic

epilepsy, in which there had been remissions of the attacks of periods varying from two to twenty-nine years. In none of these cases was trephining done. In a few of these cases the freedom from attacks was attributable to the long-continued use of remedies, but in the majority of cases, as soon as the attacks were arrested all medication was stopped, and therefore the relief from the seizures could not be ascribed to treatment. In his opinion the conclusion to be drawn from a study of the twenty-four cases represented was that epilepsy should be regarded as an incurable disease. It was encouraging, however, to find, from the long intervals which had occurred in these cases, that the disease was amenable to treatment, and that a sufferer from epilepsy might look forward to the probability of long remissions, in which he was as competent to fill his place in the world as if he had never had the disease. None of the authorities on the subject of epilepsy, who had been consulted, had expressed an opinion as to what should be considered a cure in epilepsy, nor had they paid any attention to the occurrence of long periods of freedom from the attacks, with the exception of NIEMEYER and GRAY. The former in a general way had said that "long remissions might occur," and the latter writer that "cases might be free from attacks for ten, fifteen, or even twenty years," and that he had known in his own practice "remissions of several years."—*Gaillard's Med. Jour.*

Dyspeptic Asthma.

F. H. MURDOCH (*New York Medical Journal*) describes dyspeptic asthma as a state characterised by great shortness of breath on slight exertion, the condition being not paroxysmal, but continuous; it occurs in patients suffering from gastro-intestinal diseases, without any abnormal condition of the heart, lungs, or kidneys, sufficient to account for it, and yields readily to treatment directed against the existing dyspepsia. He gives the clinical histories of five patients, three of whom were suffering from achylia gastrica, one from hyperchlorhydria, while in the one gastric secretions were about normal, so that chronic dyspeptic asthma is not constantly associated with any one form of stomach trouble. None of the five patients, however, came complaining of dyspepsia; what they did come for was to obtain relief, if possible, from the distressing shortness of breath from which they suffered. It will also be seen that while an acute attack of dyspeptic asthma, coming on as it does after a meal, is relieved, for the time at least, only by emptying the stomach, the dyspnoea attending the chronic form of the disease, being induced by exertion, however slight, is temporarily relieved only by rest. In one case the sudden attacks coming on at night were always the result of mental worry, and so it is fair to suppose that the attacks of a similar character experienced by two other patients were also due to a disturbed condition of the nervous system. In both the acute and the chronic forms of the disease, permanent relief can come only from restoring the digestive organs to a healthy condition.

SURGERY.

Moveable Kidney Producing Symptoms Simulating Gall-Stone Colic.

DRS. MACLOGAN and TREVES (*London Lancet*) say:—A moveable right kidney pressing upon the bile ducts was the cause of hepatic colic and jaundice in the cases cited by them. In each case a diagnosis of gall-stone was made before the operation, but in none was a stone found after the abdomen had been opened. In the first and third cases the kidney was found pressing on the cystic duct; in the second case the pressure was upon the common ducts.

The patients were women, one aged 35, the other two 34 years. As their symptoms were almost identical, the history of the third case only will be given. She was a woman of spare habit and had suffered for three or four years with indigestion, epigastric pains, and symptoms of biliary catarrh. During her attacks of pain the gall-bladder would be felt more or less distended, and after each she was slightly jaundiced. The right kidney was moveable, and could be felt under the liver. The attacks of pain became progressively more severe, and she was persistently slightly jaundiced. A diagnosis of stone in the cystic duct was made, and she was treated medically some months without benefit. Shortly before surgical measures were adopted she had attacks of pain every few days, so severe that morphin had to be given to control it. The gall-bladder was persistently enlarged and tender. At the operation it was found much distended, but no stone. It was discovered, however, that the upper end of the right kidney was pressing directly upon the cystic duct. The abdominal wound was closed, an incision made in the loin, and the kidney secured by three silk sutures. Since that time the patient has gained flesh, has a good colour, and has had no return of the pain. An equally favorable result was obtained in the first and second cases.

Sub-Arachnoid Injections of Cocaine.

DR. TUFFIER (*Jour. Amer. Med. Assoc*) says:—This is a review of his results with sub-arachnoid injections of cocaine for the production of anaesthesia. Sixty-three operations were done on the perineum, rectum, abdomen, urogenital organs and interior members, including vaginal hysterectomy, nephrectomy, excision of the rectum, etc., with anaesthesia induced exclusively by a fresh sterile two per cent. solution of cocaine injected into the sub-arachnoid space at the fifth lumbar vertebra, on a line level with the margin of the iliac crests. In four to ten minutes the patient feels a prickling, tingling, and numbness in the feet and legs, and then the operation can be commenced at once, as sensibility to pain and heat is abolished, although sensibility to contact is retained. The analgesia is complete, and may extend to the axillae. In one case the patient lifted the stump after amputation of the thigh to facilitate ligating the vessels. Another listened to the sawing of his femur, and remarked that he could not tell whether it was his leg or the leg of the table that was being sawed. Another, after her kidney had been removed, inquired when the operation was going to begin. Very few consent to be blindfolded. The analgesia lasts 60 to 90 minutes. The position does not affect the sensibility. No serious accidents have occurred thus far; here was merely a sensation of epigastric oppression, a little nausea and vomiting, sometimes at the time of the injection, usually not until after a few hours. It is slight, and at once yields to the ingestion of ice. These accidents were noted 50 times in the 63 operations. Cephalalgia was more frequent, but was merely a slight heaviness of the head in two

thirds of the cases. In a few it was more severe. Sweat, dilation of pupils, tremor of limbs, and acceleration of pulse were also occasionally noted, but all without the slightest gravity. The temperature also rose in 15 cases without operative complications, in one to 40 degrees C., but returned to normal the next day. In four cases a short chill was noticed.

He uses a special platinum needle, straight 9 cm. long, ext. diam. 11 mm., lumen 8 mm. It is strong, so that it will not break if it comes into contact with bone, and the tip is very short. The dose should not exceed .015 of cocaine. The technique is much the same as for lumbar puncture. The needle is inserted about one cm. from the median line of the spine, with the left forefinger on the apophysis as a guide. There is scarcely any resistance to the passage of the needle, and the issue of a few drops of cerebro-spinal fluid is the sign that the needle is in the right place. Children and hysterics are liable to be afraid, and TUFFIER rejects the method for them. In case the anaesthesia fails, general anaesthesia can be at once resorted to without added danger.

Treatment of Urethral Strictures.

R. HARRISON (*Lancet*) claims that in operations on the urethra, too often the fact is overlooked that this canal conveys for several inches at varying intervals a compound and complex fluid which, under certain conditions not clearly defined, is capable of exercising a highly poisonous effect on the tissues and fluids of the body with which it may come in contact; thus we have rigors and fever, suppression of urine, and even septicaemia. Operations on the strictured urethra produce results similar to accidental injuries of a normal urethra; thus we have a lacerated or contused wound of the urethra when division, as practised in PERREVE'S or HOLT'S operation is employed. Here the break in the tissues is at its weakest point, and the mucous membrane is torn and lacerated as in any traumatism; hence we are apt to have recurrent stricture of persistent form: whereas in periurethral or submucous strictures the dense bands are ruptured without necessary injury to the mucous membrane; hence a permanent cure may result. We produce an incised wound within the urethra in doing an internal urethrotomy. If the operation be carefully and properly done, so that the entire thickness of the stricture can be included within the incision of moderate dimensions, a permanent cure may be effected, without being necessarily dependent on the subsequent continued use of sounds, although the practice of using sounds at intervals after the operation is advisable as a precautionary measure. The tendency to relapse is greatest where the internal urethrotomy has caused a ragged laceration rather than a complete incision of the strictured tissues; multiple strictures, or strictures of the deep urethra treated by internal incision, have a tendency to recur. We produce an incised wound of the urethra from without when external urethrotomy is performed. Here, too, the permanent good results depend largely upon our technique; the operation should never be performed without a guide. Repair is necessarily slow owing to bathing of the wound with urine, and the excessive exudation about the seat of the wound; the tendency to re-contraction and recurrence of all strictures after urethrotomy is diminished by the concurrent employment of systematic and efficient urine and wound drainage, such as the combination of external urethrotomy or perineal incision affords.

OBSTETRICS AND GYNÆCOLOGY.*Use of Obstetric Forceps.*

DR. W. J. GILLETTE, (*Amer. Med. Compend*) says :— Delay in the second stage of labour, arising from (a) uterine inertia, (b) small-size vagina, (c) rigidity of maternal tissues, (d) obstruction from binds, (e) large size of head, (f) want of flexion, (g) pelvic deformity. For delay in first stage, (rarely), as in (a) placenta prævia, (b) rigidity of the os uteri, (c) absence of a natural dilating agent. For certain accidents in labor in any stage, and when rapid delivery is indicated, as (a) convulsions, (b) prolapse of funis, (c) excessive uterine action, menacing rupture. For certain secondary purposes, as for (a) extraction of the child after rupture of the uterus, (b) for removing tumours and foreign bodies from the maternal passages.

Hydrostatic Test of Still-Birth.

DR. DILWORTH records a case which shows how careful one must be in accepting the trustworthiness of the hydrostatic test of still-birth, at any rate when some days have elapsed before the examination of the body has been made. Owing to some rumors an inquest was held on the body of an illegitimate female child, which was exhumed after being buried ten days. The evidence given at the inquest went to show that the child had been born rather precipitately, but that the woman had been attended first by some neighbouring woman, then by a medical man, and finally by the parish nurse, all of whom saw the baby alive, though weakly. At the *post-mortem* the body was found to present the appearance of a child born at full term and fairly well developed. When the chest was opened the lungs were found collapsed, not filling the chest cavity, and in a state of complete atelectasis. On resort being had to the hydrostatic test, it was found that the lungs sank when both were immersed together, when immersed separately, and even when small portions were thrown in—in fact, they presented all the appearances found in the lungs of a still-born child. The matter seems of some interest as emphasising the doubt which has been often expressed as to the reliability of this sign of still-birth.—*The Hospital*.

Retention for Three Hundred and Forty-four Days of a Fœtus dying at Full Time in a Normal Uterus.

KREYET (*Arch. f. Gynæk*, Berlin) reports the following case :—

P., primipara, *ætat* 26, pains began at what was regarded full time; foetal movement ceased soon after onset of labour. Sixty-four days later, i.e., about the three hundred and forty-fourth day of pregnancy, the child was delivered with forceps. The macerated fœtus showed no abnormality. The case resembles one published by KELLY, where the membranes remained unruptured till the date of delivery. KREYET refers to the rarity of retention of a fœtus after full time, as contrasted with the frequency of missed abortion. The cause of the retention is unknown, and although KREYET believes that the onset of labour and death of the fœtus are probably caused by some change in the latter during the later months of pregnancy, yet in this case there was no ascertainable disease of mother, fœtus, or uterus. KREYET points out the importance of waiting for spontaneous delivery in cases of retained fœtus with membranes unruptured, the possibility of pregnancy in a rudimentary horn being excluded. With the membranes ruptured, the uterus must be emptied without delay, and if the fœtus be infected to any extent, the uterus must be extirpated at the same time.

Results of the Operative Treatment of Carcinoma of the Uterus.

WALDSTEIN (*Arch. f. Gynæk*, Berlin,) reports all the cases operated on by SCHAUTA, of Vienna, up to January 1899. In all there were 274 radical operations, divided as follows :—

241 vaginal hysterectomies.	
15 abdominal	"
16 sacral	"
2 perineal	"

The direct operative mortality = 12·4 per cent., or, excluding complicated cases, = 9·9 per cent. From a study of the temperature before and after operation, WALDSTEIN concludes that such cases are especially liable to die from septic infection. As many cases, however, are infected before operation, the occurrence of sepsis cannot be attributed entirely to the operation, and this accounts for a mortality of 12 per cent. in cases of carcinoma, as compared with 3 per cent. for ovariectomy.

In considering the permanent results, those must vary according to whether the disease is limited to the uterus, or has, at the time of operation, extended to surrounding parts. Of the former 57 per cent., and of the latter 87 per cent., died within six years. If one takes, as a basis for comparison, cases of cancer of the uterus not treated by operation, WALDSTEIN believes that, in early cases, operative treatment prolongs life in 64 per cent.; in more advanced cases this may be expected in about 40 per cent.

Two Pregnancies after Double Castration.

ACCORDING TO *Obstetrics* for November, KOSSMANN reports a case in which pregnancy occurred after a double ovariectomy. The patient was suffering with intense bilateral ovaritis. The tubes were left *in situ*.

He was much surprised when, eighteen months later, the husband of the woman called to inform him that his wife was pregnant. In due time the child was born after an easy labor.

KOSSMANN was certain that no supplementary ovary had been present, as it chanced that this subject is one in which he is specially interested, so that a third ovary would hardly have escaped detection.

He was not so certain that in placing his ligatures and cutting away the ovaries he might not have left a small fragment of the latter in the stump.

As if to further confound the wisdom of those who would bring about an artificial menopause by double castration, this woman subsequently gave birth to another child.

Relation between Dysmenorrhœa and Appendicitis.

ARCH. MACLAREN discusses the influence of pelvic inflammatory conditions upon menstruation, and states that, in some cases of cystic ovaritis and ovarian abscess, he has seen satisfactory results following the removal of diseased appendages which had previously been overlooked. He states that in 200 laparotomies he had 158 cases where inflammatory appendages were removed, and in 40 per cent. of these the appendix was diseased. He comes to the conclusion that the trouble originated in the appendix, and spread to the ovary and tube. During the same time the author has operated on seventeen cases of appendicitis where there was no evidence of extension of the inflammation. In the discussion which followed, SKENE said that the paper explained certain observations, which he had been unable to account for, of ovarian pain, undoubtedly caused by appendicitis, and which had disappeared when the appendix had been removed. LATHORN SMITH mentioned that in nine or ten cases, where he had operated for tubal pregnancy or pus tubes, he had found the appendix firmly embedded in the tumour. In one case of tubal pregnancy, the specimen could be held up by the appendix. The salpingitis resulting from the appendicitis was probably the cause of the tubal pregnancy.—*Amer. Jour. Obstet.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Functions of Cerebellum.

R. GATTA (*La Reforma Medica*), as a result of extended experimental observation on animals, concludes that (1) the clinical syndrome of cerebellar disease is rendered multiform by the phenomena of compression and irritation of the contiguous and distant parts of the brain (the pons, medulla, cranial nerves and cerebrum); (2) the alterations in the cerebellum and the clinical and experimental phenomena are in proportion to the extent of the lesion; (3) complete destruction of the cerebellum in animals and similar lesions in clinical cases produce ataxia, asthenia, and atony; these effects remain for a long time in the experimental cases, although the functions return to a certain extent in some cases; (4) the pathological experimental processes, resulting from rapid intoxication, may occasion disease lasting months and years; (5) clinical observations are in accord with the results obtained experimentally.

Pathology of Puerperal Sepsis.

ALFRED BAAS (*Centralblatt für die Grenzgebiete der Medizin und Chirurgie*) draws the following conclusions: (1) The uterine cavity of healthy, unexamined pregnant women, and in most cases that of healthy, post-partum patients, is free from pathogenic germs. (2) The question as to whether the vagina of healthy, unexamined, and non-irrigated pregnant women and post-partum cases is free from pathogenic bacteria, cannot at present be definitely answered, even though a series of observations point in this direction. (3) Auto-infection in any given case must be diagnosed only when every possibility of external infection has been excluded; then auto-infection, AHLFELD'S view notwithstanding, will be found as a very rare occurrence. (4) The following bacteria have been found as causes of puerperal sepsis: streptococcus pyogenes, staphylococcus pyogenes aureus and albus, bacterium coli commune, pneumococcus, typhoid and diphtheria bacilli, bacillus aerogenes capsulatus, and vibrio septique. (5) The portal of infection is most frequently the endometrium, especially the placental site, both of which are reached by the direct introduction as well as the rapid growth of the bacteria. (6) The way of infection is lymphatic or circulatory, seldom both at the same time. (7) A positive clinical differentiation of the various bacterial forms cannot be determined, though the anaerobic infection runs a milder and more favorable course. (8) The blood examination, with the exception of bacteriemia, shows nothing characteristic for puerperal sepsis.

Parasites in the Blood.

LEON T. LE WALT writes that, of the true parasites which are found in the general systemic circulation, there are two of great importance: (1) The *filaria sanguinis hominis*, causing the disease known as filariasis. There are three varieties of this parasite, viz., *filaria nocturna*, *filaria diurna*, and *filaria perstans*, the terms indicating their special characteristics. The transmission of this parasite by means of the mosquito has been established. (2) The *plasmodium malariae* (tertian, quartan, and festivo-autumnal). The parasite, after developing in the stomach of the mosquito, breaks up into small bodies which pass to the salivary glands and thus into the proboscis of the mosquito. The mosquito thus acts, not only as the definite host of the malarial parasite, but also as the transmitting agent.—*New York Med. Rec.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Regulation and Abolition of Prostitution.

THE *Medical Times* says that this great social question has long been a subject of discussion by physicians and legislators. In some of the European States it has been regulated by law so far as license and general supervision is concerned, looking always to the protection of the public health. At the International Congress of London and Brussels in 1899, the question of the regulation and abolition of prostitution was fully discussed. Dr. OGOSHIRO, who is what is termed a moderate abolitionist on this question, discourses at some length on the arguments "for and against the licensing of vice," as they were presented at these congresses.

Statistics, he says, shows that (1) The spread of syphilis has by no means diminished during the existence of police supervision; on the contrary, it continues to increase in alarming fashion. (2) The best representatives of modern medicine deny the old-fashioned notion that prostitution is a necessary evil; on the contrary, they say that continence is the best foundation for the health of young men. (3) Police supervision is not, and cannot be, successful, because it must necessarily be entrusted to the lowest grades of officials whose moral and mental calibre is not high enough for the requirements of this work. (4) The protection of the houses of ill fame by the Government is a disgrace to Christian nations, undermines the conception of the criminality of prostitution among the youth of the country, facilitates the indulgence in vice, and guarantees in a measure the absence of ill-consequences of vicious practices, thus serving as a direct temptation and inducement to young men to lead an immoral life. (5) The system of surveillance, with its licensed houses and officially permitted system of pandering, not only does not protect public women from abuses, but even by securing the mistresses of the houses under the wing of police protection, increases the slavery of the prostitute, and by inscribing them into the rolls of public women, cuts off all possibility of their returning to a decent mode of life. (6) The criminal phases of prostitution should be under the jurisdiction of the criminal courts, and not, as at present, subject to the will of the police authorities and the regulations concerning surveillance. Under the present system much that is prohibited by criminal law is permitted by the police code.

How to make a Mustard Plaster.

NEVER place a cold mustard plaster on a patient. The shock is like a sudden plunge into cold water. Before you commence to mix the paste be sure you have the necessary material at hand. First put a large plate where it can get warm, not hot. Then stir the mustard and flour thoroughly together before you add the water, which should be tepid; stir in enough water to make a paste about the consistency of French mustard. Place your cloth—an old handkerchief is best—on the warm plate, spreading the paste in the middle of it, leaving a margin wide enough to lap well over on all sides. Do not remove paste from the plate until ready to apply. Place a folded cloth between paste and patient's clothing.

How the Heart Beats at Night.

BAD covering is intended to give the body the warmth that is lost by reduced circulation of the blood. When the body lies down, the heart makes ten strokes a minute less than when the body is in an upright posture. This means 600 strokes in sixty minutes. Therefore, in the eight hours

that a man usually spends in taking his night's rest, the heart saves nearly 5,000 strokes. As it pumps six ounces of blood with each stroke, it lifts 80,000 ounces less of blood in the night than it would during the day. Now the body is dependent for its warmth on the vigour of the circulation, and as the blood flows so much more slowly through the veins when one is lying down, the warmth lost in the reduced circulation must be supplied by extra coverings.

Examination by Unfriendly Doctor.

THE Supreme Judicial Court of Massachusetts says that, in the personal injury case of *Stack vs. the New York, New Haven and Hartford Railroad Company*, where the defendant denied the injuries, it was permitted, two days before the trial, to send two doctors, who made a thorough examination of the plaintiff in company with the doctors employed by him. Nevertheless after he had closed his case, and after it had called its two doctors as witnesses, the defendant asked the trial judge to order the plaintiff to submit to an examination by another doctor named by it. The plaintiff objected on the ground that his relations with that doctor were unfriendly, but offered to allow an examination by any other physician whom the defendant might select. The defendant declined the offer, and thereupon the judge refused to make the order, ruling that he had not power or right to make it under the circumstances. Commenting on this, the Supreme Judicial Court says that perhaps the words "under the circumstances" so far cut down the seemingly absolute denial of power in the first part of the ruling that it meant only to state emphatically the plain injustice and outrage which it would have been to make the order proposed. The judge probably was justified in assuming the truth of the plaintiff's statement that his relations with the doctor were hostile. He certainly was justified in assuming that the plaintiff had personal objections to him. When the plaintiff coupled with his objection an offer to accept any other doctor whom the defendant might choose to send, bearing in mind the large possibilities that were open by telegraph and rail, he had a plain right to have his personality respected to the small extent that he asked. So if that was all that ruling meant, as it certainly was all that was needed to dispose of the matter, the court says that in its opinion it was right. Nor does it stop there. But it declares that if the ruling required the decision of a broader question, it agrees with the Supreme Court of the United States, the New York Court of Appeals, and some other able courts, that the power does not exist. The need of the power, it thinks, may easily be exaggerated, because, if contrary to usual experience, a plaintiff should dare to refuse a reasonable examination, it would be the subject of just comment to the jury. And if the power should be deemed needful to a more perfect administration of justice, the remedy, the court suggests, should be furnished by the legislature. A statute empowering the court to order a view of any place in question, or of "any property, matter, or thing relating to the controversy between the parties," it holds, does not extend to the ordering of an interference with the person of a party by some one out of court, in order to enable him to qualify himself to be called as a witness by the opposing party if the latter sees fit. Moreover, the court says that it cannot doubt that, as a matter of history, the power it was asked to assert was a kind rarely claimed or exercised by common-law courts. And, in conclusion, it puts decision, not upon the impolicy of admitting such a power, but on the ground that it would be too great a step of judicial legislation to be justified by the necessities of the case.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY. Levulose in Diabetes.

THE *Therapist* quotes an article on this subject by ANDREA FERRANNINI, which appeared in *Il Politecnico* for November 1899. The author draws the following conclusions from his experiments:—

When glucose continues present in the urine of a diabetic subject, in spite of the diet being exclusively albumino-adipose, the administration of levulose augments the quantity of sugar contained in the urine.

When the sugar disappears from the urine, the diet being much scantier, although exclusively albumino-adipose, we may administer 13 drachms of levulose in 24 hours without causing it to reappear in the urine; but the quantity of levulose may not be repeated on the following day, as sugar would then show itself. It is only with a dose of 6½ drachms of levulose administered on alternate days that the sugar does not show itself in the urine, even when this alternate treatment is continued for a protracted period of several days.

This small dose of 6½ drachms of levulose administered on alternate days, when not eliminated as sugar in the urine, saves the consumption of the nitrogenous substance in a much greater proportion than agrees with the law of the thermo dynamic equality of the articles of food, so that this effect is also due to other bio-chemical properties which have not yet been ascertained.

Palatable Prescribing for Children.

HERMAN B. SHEFFIELD, in the *Medical Times and Register*, calls attention to the importance of writing palatable prescriptions for children.

He gives a number of combinations for iron, quinine and other medicines, and lays down the following general rules:—

Never prescribe medicines, unless thoroughly convinced of their absolute indication. If a placebo is desirable, employ a palatable adjuvant.

Never prescribe a preparation requiring a large dose when a small quantity of another proves equally efficient, i. e., use an alcoholic extract or an alkaloid instead of a syrup, tincture or infusion.

Never prescribe an offensive, nauseous mixture when a palatable one will be equally serviceable.

Never prescribe more than two ill-tasting drugs in one adjuvant, and do not combine several adjuvants which are apt to disguise each other.

For Anti-Scurf Pomade.

Quinin sulph ...	...	...	gr. xxx.
Borocin ...	...	...	3ij.
Hyd. ox. rub ...	...	...	gr. xv.
Lanolin ...	...	...	3j.
Paraff. moll. ...	...	...	3j.

M. Ft. ung.

The red precipitate powder must be very finely levigated before incorporating with the basis.

Diaphoretic-Powder.

The following has been recommended :—

Powdered camphor	...	...	gr. iss.
Powdered opium	...	...	gr. ½.
Acetate of potassium	...	...	gr. iij.
Sugar	...	...	gr. cl.

M.

To form one powder, which is put into a cup of tea and taken at bedtime.

Eucaine for Aurat Anæsthesia.

DR. A. GRAY, Glasgow, in the *Lancet*, speaks well of a liquid for instillation into the ear, made of—

Cocaine hydrochloride	...	...	5 parts.
Rectified spirit	...	...	50 "
Anilin oil	...	...	50 "

As the medicinal dose of anilin oil is only 7 minims, care must be taken that more than that quantity is not absorbed.

Emulsion of Castor-Oil.

R. Oil ricini	...	1 ounce	(31 grammes).
Gum acacie	...	½ "	(16 ")
Elixir saccharin	...	20 minims	(1·3 ")
Oil amygdalæ	...	2 "	(0·13 ")
Oil carui	...	2 "	(0·13 ")
Aq. destill	ad 2 fluid ounces	(62 ")	

Mix. Dissolve the gum in the water, add the oil gradually, and lastly the flavouring.

For Amenorrhœa.

R Strychnine sulphat	...	...	0·12 cgm.
Acid oxalici	...	...	0·60 "
Ferri peptonat,	...	...
Manganesi lactat	...	...	aa 8 gm.
Ext. colocynth. comp	...	...	2 "

M. ft. cachets No. 60. S. One after each meal.

—H. C. BLOOM.

For Blennorrhagic Dysuria.

R Sod. salicylat	...	...	10 gm.
Ext. bellad	...	...	0·30 gm.
Aque	...	...	195 gm.
Tinct. aurant. cort. amar	...	...	5 "

M. S. Dessertspoonful every two to three hours.

—E. GERBERT.

For Pernicious Anæmia.

R Fowler's solution	...	...	3 'iss.
Acid phosphate	...	...	3 'ij.
Bone marrow extract	...	...	3 'viij.

M. S. Dessertspoonful after each meal.

—J. N. DANFORTH.

For Smokers' Gingivitis.

R Salol	...	...	1
Tinct. catechu	...	...	4
Spt. menth.	...	...	120

M. et ft. loz.

Sig. Teaspoonful in half a glass of tepid water as mouth-wash.

Correspondence.**THE NEED FOR STUDENTS' QUARTERS IN BOMBAY.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following article appears in the *Times of India* :—

There have recently been some sad and striking deaths from plague among the students of the Grant Medical College, and the occurrence is by no means a novel one. It is a painful experience repeated year after year ever since the commencement of the plague in Bombay. Nine students have fallen victims to the fell disease, and three more were attacked, but had a narrow escape. The conditions of living which are enforced on the students give rise to other ailments too. There have been within the last few years nine victims to phthisis, two to cholera, and three to pneumonia and relapsing fever. Such deaths cannot be the result of accident or any idiosyncracies in the health of the students. The cause is to be found, in my judgment, in the health conditions of the dwellings which they occupy during the course of their studentship.

This aspect of the question brings into prominence one very crying want of long standing in connection with the college. Residential quarters for students are a well recognised and necessary adjunct to every collegiate institution. The Elphinstone and Wilson Colleges in Bombay and the Deccan and Fergusson Colleges in Poona have all got their provision, possibly inadequate, for the residence of their respective students. In the case of the Grant Medical College the need is all the greater.

During a considerable part of the course the students have to attend the different hospitals in the morning and the college at daytime, which requires their presence within the college precincts almost the whole day from morning to evening. During the last two years of the course especially, attendance of the students is required at the clinical and at the obstetric wards even at night. Such conditions of attendance obviously require the students should have facilities of living within easy reach of the college. In consequence of this the students congregate in the chawls and squalid buildings at First Nappada and Bellasis Road in close proximity to the college.

In the early years of the college the students were few, and for the most part residents of Bombay. At that time the need for residential quarters for students was not, perhaps, acutely felt, and no provision was made for them along with the building of the college, as is usually done in the case of the Arts Colleges. In course of time, however, the number of students has grown, and a considerable body of them come from up-country. They are utter strangers in Bombay and have to shift for their lodgings in the immediate neighbourhood of the college as best they can. The locality in the vicinity of the college, whatever its health conditions at the time the college was built, has now become a most unenviable no-man's-land for unhealthiness. First Nappada and its surroundings are the worst plague spots in Bombay, and it is in the midst of these surroundings and

in houses most filthy and insanitary that the students have to dwell. Last month, while a batch of students was living in a chawl at Parel Road, death rates were observed in some of the rooms, and the students removed to a place at Grant Road. But the infection caught at the first chawl did its deadly work. One student after another was struck down with plague, and there was quite a consternation among the young men. Two of the students eventually succumbed, while two more were rescued from the jaws of death. It pains one to think that these deaths were avoidable, and that the valuable lives might have been saved if only there had been a better provision for their residence.

There is an acknowledged educational value in the corporate living of students during college days. The Arts Colleges have recognised this value, and have from the first endeavoured to provide for the residence of students under theegis of the college. When the Elphinstone College was transferred to its present home, the late Mr. Justice TELANG strenuously fought for residential quarters being provided, and the Government of Lord REAY undertook to supply the want. The college has a prospect of an additional provision in the proposed Telang Hostel whenever the Government is able to find its supplement to the Telang Memorial Fund. The Deccan College has quite a name for the excellence of its residential rooms, and under the watchful care of its able and sympathetic Principal, Mr. SELBY, it has only recently received an addition to its already ample accommodation. In his last Administration Report Mr. SELBY, referring to the want of room and to several students having had to attend only as day-scholars, observes that they thus lose more than half the benefits of a college career. The Grant College has, I know, within the college compound a small low building which furnishes room for sixteen resident students; but it is obviously insufficient even for that limited purpose, the senior class having long outgrown the accommodation. It was probably first meant as a resting place for the students keeping night watches for labour and other urgent cases, for which purpose two of the rooms are even now reserved.

What I am pleading for is a healthy and commodious building for the residence of all such students as may be in need of the provision. If the Government has recognised its duty in providing for the wants of the Arts students, I venture to think the medical students have at least an equal claim. In fact, as I have said above, the need of the medical students is all the greater. In his case it is a question of absolute necessity, and not of mere convenience or extra educational influence. Let me, therefore, earnestly appeal to the Government, as well as the medical profession and the public at large, to seriously take up the subject and make a strong effort to meet this long-standing want.

This appeal, just at this time, will possibly be considered inopportune. The Government, I know, has its hands full in consequence of the never-ending plague and famine. The public, too, have many demands to meet, and the appeal on behalf of the medical students is apt

to be considered an insufferable addition to our already overloaded burdens. But our impecuniousness and pressure of demands have become a normal aspect of our life. We shall have to wait in vain if we seek to suit our call to the time. The cause of the students, moreover, is a cause of humanity, which affects the entire public and is good for all time. I would, therefore, beg of the Government not to put off the question on the grounds of multiplicity of present claims. Its Educational Budget annually provides for some building grants, and I would venture to suggest that the medical students' quarters should receive priority in the Budget over all other similar claims. The profession and the public too, in spite of their numerous calls, will, I trust, find a warm corner in their hearts for the wails of the students. The Principal and the Professors of the college are doubtless keenly alive to the grave hardship of the students. I appeal to them to take the lead in this movement, and to use the high prestige of their position in winning success to the cause. It is on the medical profession that the duty of helping their struggling brethren most heavily lies. They must make a strenuous effort to arouse the public conscience. The evil which confronts the students is very insidious, and is not likely to catch the imagination of the people. But the true proportions of the evil and its ruinous effect must be laid bare and an endeavour made to grapple with it. I have every hope that if the public mind is once fully aroused to the gravity of the evil, the grievances of the students will not take long to remedy.

Yours, etc.,

BHALCHANDRA KRISHNA, L.M.S.

March 15th, 1901.

CIVIL ASSISTANT SURGEON, NO MORE GALLI PLEASE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The discussion in the *Record* about the Civil Assistant Surgeons is becoming unpleasant, as it is assuming more or less the form of personal attacks. The letter from the pen of a "METAMORPHOSED APOTHECARY," in your issue of the 6th instant, has transgressed the bounds of legitimate criticism. The gentleman might well have used his pen for something better, and reserved his multiple exclamations for some other occasion. He should have tried to refute the points raised by "TOMTIT" with sound reasoning, or else it would have been much better if the ideas displayed had remained buried in the mio-enic deposits of the brain.

He has taken the trouble to guess that TOMTIT was a locally educated man, but does it serve any purpose in the proper discussion of the points raised by TOMTIT, M.B. TOMTIT put forth the grievances of all Civil Assistant Surgeons, whether holding local or British qualifications. To say that he did it from personal interest is saying the truth, but it would be saying too much in these days.

Purely disinterested philanthropy is rare, might be extinct, and would probably be found only in the muses of old philosophers. Would the metamorphosed apothecary dare assert that he himself had no interest in writing what he did.

Civil Assistant Surgeons have no experience of the British regiments, and cannot say how they would fare amongst Tommies; but there is no lack of pure European civil officers, who could better be in the hands of gentlemen of the Babu class than in those of many of the class of Imperial Anglo-Indians. Can we not infer from this?

TOMTIT never came down to purely personal merits and demerits: he contended for the classes, when he said that for equal privileges there should be a uniform standard of qualifications and tests, and that is why he advised the Military Assistant Surgeons to insist upon having the standard of their qualifications raised, and thus become Assistant Surgeons by "right" and not merely by the "loan of a name." When that is done, no Civil Assistant Surgeon will have a valid reason to grumble when put under them.

"METAMORPHOSED APOTHECARY" puts the opinion of TOMTIT, M.B., against what he calls the opinion of Government, and seems as contented after the comparison as the old gentleman in Stearns' Calendar for 1901. But if we all were equally contented with the opinions of Government on all occasions, and took them as unerring gospel truth, not requiring a suggestion for modification, there would be many many pages wanting from papers, even like the *Record*; there would be no memorials, no deputations from Associations to wait upon the Viceroy for certain classes of people.

TOMTIT is not the only man who wants the Government to become colour-blind; only recently a letter appeared in the *Record*, where a Military Assistant Surgeon (probably a brother officer of the METAMORPHOSED APOTHECARY) intending to proceed to Uganda Railway was harping upon the same strings. Is it not necessary that there should be guiding principles, and that we should not be changing like the weather-cock, just as suits the occasion? In my opinion he should not have criticised TOMTIT in this respect. In the colour question there is good deal common between the Babu class and the Military Assistant Surgeon, because, let it be remembered, that in the Imperial Anglo-Indian class (the class from which chiefly the Medical Assistant Surgeons are drawn) there are all shades of colour—light and deep. METAMORPHOSED APOTHECARY is himself discontented with the liberal policy of the Government in allowing natives to obtain what education they have.

Would he have the doors of public schools shut upon the face of all natives of pure Indian blood? The race feeling is not so much found amongst pure Europeans and pure Indians as it is among those who are striving to obtain the status of a distinct race in themselves. Does he suggest that the magnetizing touch of the European name and blood has a contracting influence on the Indian races to fit them into their shoes. The Government and the leaders of the Indian community should take warning from LIEUT.-COLONEL, I. M. S., and his METAMORPHOSED APOTHECARY, who, in spite of Lord CURZON's strongly expressed dislike for Europeanised Indians, would have us believe that there is no salvation for us unless we undergo a metamorphoses of that nature.

Yours, &c.,
"M. B."

Civil Assistant Surgeon.

MEDICAL PRACTITIONERS' VISITING FEES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Kindly give your opinion on the following:—

I consider the method of charging fees by visits does not pay a medical practitioner for his trouble, and it is in my opinion not a good plan at all.

Patients' friends or relatives go to the doctor in time of necessity, and beg of him to attend to the case, and

promise him that he will be paid all charges at the end on receiving a bill. The friends or the relatives are compelled to tell the doctor so, being in a state of great anxiety about the patient; but when the business is over, that is, when the patient gets over his illness or dies, a bill is sent by the doctor, the result is generally that only half, or quarter, or three-fourths of the amount billed is paid; very many dodge, pay nothing at all; some clear away to some other place; some pay little with disgust; some put off payment from time to time, causing great annoyance to the doctor. It is only a very few people—honest—pay the full amount. For the most part payments are not paid satisfactorily. If you happen to sue the bad paymasters in the court for recovery, this incurs displeasure between the doctor and the parties concerned, and causes general unpopularity in the place. On the other hand, it is not a pleasant thing to attend court frequently: it is annoying and wastage of time to the doctor. If the patient dies after all the doctor's trouble to bring him round, his fees are not thought of: so it happens in several cases. Sometimes a small amount of the bill is paid, saying that "if the patient got all right, the whole amount, and more, would be paid"; such are the cases by charging by visits.

A lawyer takes his fees from his client at the beginning, according to the nature of the case, and then attends court to plead; if only half of the amount is paid to him at the commencement, he takes a pro-note (on demand receipt or so) for the remainder to be paid at the end, whether he wins the case or not, trying his best.

I would suggest, for the good of the medical practitioners in general, that they should get first their visiting fee only to see the patient, and after seeing him, they should demand a certain sum (not on a contract system), according to the nature of the case, at the beginning, and inform the patient's friends or relatives at the same time that "a bill will be sent at the end for any further fees, showing in it clearly the full amount, and the deductions made for the amounts already paid," and make the patient's friend or relative sign a stamped document to the effect that he consents to the doctor's agreement. If no payments are made at the beginning, the doctor need not take up the case. After the receipt of the first demand, should any further demand be required before the end of the case, the patient's friends may be asked to pay; should they refuse, give up the case. Second demand should not be made until the first one covers fees for visits, and so on.

(Of course the charges for prescriptions are not included in doctor's visiting fees, as some people think).

This system, I think, will be a paying one, and a good one too, if all practitioners stick to it.

I would like to hear your opinion and that of the practitioners in general.

Yours, &c.,
A MEDICAL PRACTITIONER.

Burma, 15th March 1901.

CALCUTTA MEDICAL COLLEGE HOSPITAL : A PROTEST.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With due deference to your editorial remark on the alleged unfair discharge of KUDAR NATH GHOSAL from the Calcutta Medical College Hospital, published in your issue of the 20th current, I beg to submit that the petitioner, Babu BENODI BENDAY BANERJEE, should have personally seen the Superintendent of the said hospital at his office as desired by that officer. But as

the former could make no time to do so, for which he himself apologised in his letter to the Superintendent, the latter could write out to him the result of his enquiry, inasmuch as there was official correspondence going on between them. He could equally satisfactorily and ably explain in *black and white* what he had intended to do verbally at his own office. Be that as it may, there are lots of matters referring to the case, which, if brought out in the course of enquiry prayed for by the petitioner, would throw floods of light on the inner workings of the hospital. We are at a loss to understand what prevents the hospital authorities from giving out the clinical reports of the case to enable the public to judge that they were justified in turning out a patient who was on the fair way to recovery under treatment in the said hospital. It is betimes that "a sifting investigation by an independent mixed committee of both officials and non-officials," as suggested by your own goodself in your issue of the 27th ultimo, be ordered by the Lieutenant-Governor of Bengal, so that the public, for whose benefit the charitable hospital has been established, might be satisfied. The matter should not be left alone. It is but just and fair that in the interest of the general public Dr. HAZRA should assign reasons for his action, which is considered by the public morally unwarrantable.

Yours, &c.,

Hughly, the 22nd March 1901. SIB CHANDRA DASS.

(We know nothing of the "merits" of this particular case, but upon the grounds disclosed by the correspondence published in this journal, we think the College authorities have acted rightly and for the general good.—Ed., I. M. R.)

A STRANGE PRESCRIPTION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following prescription was brought to us a few days ago to be dispensed; we refused to dispense it. Will you be so good as to let us know what the medical man was treating, and what effect he wished to produce? We are unable to guess.

For Mrs.—

R	Tr. cantharidis ...	...	Siv. (4 drs.)
	Tr. nux-vomica ...	...	Siv.
	Tr. belladonna ...	...	Siv.
	Oil of aniseed ...	...	grs. xx.
	Tr. opii ...	...	Siv.
	Aqua menth pip ...	...	Siv.

Ft. mint.

Put four marks. Take one mark every hour, until the effect is produced.

A. GHANI, M.D.

What effect?

P. S.—The prescriber signs himself A. GHANI, M.D. Is this another American M. D.?

Yours, &c.,

BATEMAN & CRIPPS.

Ferozepore, 18th March 1901.

(If this prescription is correctly copied, no chemist would dare to dispense it, as four of the ingredients are prescribed in highly poisonous doses.—Ed., I. M. R.)

MEDICAL ADVERTISING IN CALCUTTA: A RETRACTION AND AN APOLOGY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to letter from L. M. S. in the *Indian Medical Record* of March 20th, re "Medical Advertising," I would ask you to permit me to say that I am exceedingly sorry the leaflet referred to was ever issued. Its further circulation I immediately prohibited, no more issues being made, and I would beg to sincerely thank L. M. S. for his letter.

Yours, &c.,

J. B. MALONEY.

Calcutta, 26th March 1901.

(We gladly insert Surgeon-Captain Maloney's letter. We are informed now that he was not even consulted with regard to his name appearing in the advertisement named.—Ed., I. M. R.)

Government Medical Gazettes.

BOMBAY.

The undermentioned lads are admitted into the Med. Dept. from the dates mentioned opposite their names:—

Bombay Presidency.

W. E. Cody, 17th Nov.; A. M. Hudson, 16th Nov.; H. De Penning, 17th Nov.; H. B. Vincent, 19th Nov. 1900.

Bengal Presidency.

F. O. Wade, 21st Nov.; E. D. Lobo, 31st Nov.; G. R. Atkins, 21st Nov.; R. W. O. McEvoy, 16th Nov.; C. A. Wells, 15th Nov.; C. B. O'Brien, 16th Nov.; L. D. S. Atkins, 21st Nov.; H. A. Young, 23rd Nov.; A. W. Hasel, 23rd Nov.; D. E. Lawrence, 17th Nov. 1900.

The undermentioned have passed the exam. and are admitted into the Byramji Jijibhoy Med. School, Ahmedabad, from the 1st Nov. 1900:—

Jamaludin Amiria Kazi; Vandrayan Vallabhji Shah; Chotalal Somabhai Patel; Krishnaji Balwant Bhagvat; Manilal Ambalal Desai; Girjashanker Ishvarlal; Jethalal Narotum Shah; Manilal Someshwar Pandya; Lalshanker Khimashanker Vyas; Dayalji Malji Rajpara; Chhelsanker Prabhashanker; Dalishanker Malji Trivedi; Chotalal Harilal Desai; Manilal Nanalal; Mugalil Manilal Vorah; Chhotalal Muljibhai Shett; Lilashar Bhagvandas Modi; Mangalprasad Revashanker; Bhulabhai Govindlal Chokshi; Chaganlal Girdharbhai Joshi; Batilal Bapalal Dave; Narmdashanker C. Raval; Maganlal Mugalram; Bapalal Karunashanker; Krishnalal Nilkanthrai Chhatrapati.

The undermentioned are admitted into the Dept. as Civil Med. Pupils:—

Keshav Balaji Boirkar, Civil Hosp., Dhulia, 6th Dec. 1900. Ramchander Gopal, Civil Hosp., Satara. Mahadeo Peeraji Jadov, Civil Hosp., Belgaum, 30th Nov. 1900.

Hillarama A. Lewis, Civil Hosp., Karwar, 4th Dec. 1900. T. S. Maldanba, Civil Hosp., Ratnagiri, 10th Dec. 1900. Shaik Kutubdin, Civil Hosp., Dhulia, 2nd Dec. 1900.

Bhaganna Baikrishna, Civil Hosp., R. W. Diap., Thana, 4th Dec. 1900.

Tuljaram Ranoji Morey, Civil Hosp., Kaira, 11th Dec. 1900. Shanker Atmaram Sonar, Civil Hosp., Kaira, 10th Dec. 1900.

Abdul Gani waled Kadir Saheb Indiker, Civil Hosp., Dharwar, 10th Dec. 1900. Balwant Govind Godse, Civil Hosp., Ahmednagar, 6th Dec. 1900.

PUNJAB.

On being released from suspension, Hosp. Asst. Nannak Chand was apptd. to the ch. of the Delhi Jail Hosp. on the 8th Feb. 1901, relieving Hosp. Asst. Bhagwan Singh.

On being relieved of the Civil Med. ch. of the Umballa Dist. Asst. Surg. Krishen Chand reverted to the ch. of the Umballa Civil Hosp. on the 14th Feb. 1901, relieving tempy. Asst. Surg. Ragonath Sahai, Shankra, apptd. to do gen. duty at Umballa.

On being relieved of the tempy. ch. of the Leish Diap., Dera Ismail Khan Dist. Hosp. Asst. Karam Chand was apptd. to do gen. duty at Mooltan from the 11th Feb. 1901.

Asst. Surg. Udai Bhan, Imperial List doing gen. duty at Shabpur, to Chakwal, Jhelum Dist., for ch. of that diap., which he joined on the 11th Feb. 1901, relieving Asst. Surg. Balmokand.

Hosp. Asst. Gandu Ram, doing gen. duty at Amritsar, to the Madhopur Canal Diap., Gurdaspur Dist., which he joined on the 7th Feb. 1901, relieving Hosp. Asst. Behari Lal, apptd. to do gen. duty at Gurdaspur on the 9th Feb. 1901.

Asst. Surg. Guranditta Mal, Asst. Chemical Examiner to Govt., Punjab, and Lecturer on Midwifery and Med. Jurisprudence, Lahore Med. Coll., has obtained 30 days' privilege leave from the 12th Feb. 1901.

Senior Asst. Surg. Rai Bahit Sobha Ram, on special duty, has obtained three months' privilege leave from the 12th Feb. 1901.

Hosp. Asst. Wali Muhammad, Militia Border Police, Ozh, Huzara Dist., has obtained two months' privilege leave, and was relieved of his duties on the 8th Feb. 1901 by Hosp. Asst. Amir-ud-din, transferred from Mochiarpur.

Capt. G. F. W. Evans, I. M. S., Suptd. of the Punjab

Lunatic Asylum, Lahore, is granted privilege leave of absence for two months and four days.

Capt. J. Davis, Senior Asst. Surgn., made over ch. of the duties of Supdt. of the Gujranwala Jail to Lieut. J. T. Weston, M.D., Senior Asst. Surgn., on the 5th Feb. 1901.

Capt. D. W. Sutherland, I. M. S., assumed ch. of the duties of Offg. Professor of Medicine in the Lahore Med. Coll. on the 6th Feb. 1901, relieving Maj. H. Hendley, I. M. S.

Capt. H. G. Melville, I. M. S., assumed ch. of the duties of Offg. Professor of Materia Medica and Pathology in the Lahore Med. Coll. on the 6th Feb. 1901, relieving Capt. D. W. Sutherland, I. M. S.

Capt. E. L. Perry, I. M. S., assumed collateral ch. of the Civil Med. duties of the Ferozepore Dist. on the 9th Feb. 1901, relieving Maj. J. R. Adie, I. M. S.

The services of Hosp. Asst. Ghasia Ram being no longer required for plague duty in the Jullundar Dist., he was apptd. to the ch. of the Sadhaura Dispy., Umballa Dist., on the 9th Jan. 1901, relieving Hosp. Asst. Muhammad Ishaq.

On transfer from Sadhaura, Hosp. Asst. Muhammad Ishaq was apptd. to the ch. of the Police Hosp., Umballa, on the 14th Jan. 1901, relieving Hosp. Asst. Abdulla, who was permitted to retire from the service.

Hosp. Asst. Ali Ahmad, doing gen. duty at the Jalalpur Dispy., Gujrat Dist., reverted to Jullundar for gen. duty on the 21st Dec. 1900.

Hosp. Asst. Khawaja Ahmad resumed ch. of the Palampur Dispy., Kangra Dist., on the 5th Jan. 1901, relieving Hosp. Asst. Kahan Singh.

On transfer from the Talamba Dispy., Mooltan Dist., Hosp. Asst. Gela Ram reported himself to the Civil Surgn., Mooltan, for gen. duty on the 6th Jan. 1901.

Hosp. Asst. Karm Chand, Dasuya Dispy., Hoshiarpur Dist., has obtained three weeks' privilege leave, and was relieved of his duties on the 30th Dec. 1900 by Hosp. Asst. Bindraban, transferred from Jullundar.

Asst. Surgn. Baij Nath, Ripon Hosp., Simla, has obtained 60 days' privilege leave from the 2nd Jan. 1901.

Asst. Surgn. Ram Narain (1) was apptd. to do gen. duty at Mianwali, Bannu Dist., from the 14th Dec. 1900.

Asst. Surgn. Ram Narain (1), while doing gen. duty at Mianwali, will hold ch. of the lock-up hosp. at that stn. He assumed ch. on the 18th Dec. 1900, relieving Hosp. Asst. Ghulam Rasul.

Hosp. Asst. Fakir Chand, doing gen. duty at Lyallpur, Jhang Dist., was apptd., as a temp. measure, to the Naushera Dispy., Shahpur Dist., on the 4th Jan. 1901, relieving Hosp. Asst. Ram Chand.

On transfer from Naushera, Shahpur Dist., Hosp. Asst. Ram Chand assumed ch. of the Khushab Dispy., in the same dist., on the 10th Jan. 1901, relieving Hosp. Asst. Narak Chand, who was granted three months' privilege leave from the same date.

Hosp. Asst. Mehtab-ud-din, doing itinerating duty in the Hissar Dist., was granted one month's privilege leave from the 16th Dec. 1900 to the 15th Jan. 1901.

Hosp. Asst. Mohan Lal, doing gen. duty at the Civil Hosp., Sialkot, was apptd. to the sub. ch. of that institution from the 22nd Dec. 1900.

On transfer from Peshawar, Asst. Surgn. Fazl ud-din was apptd. to the ch. of the Gujranwala Dispy. on the 12th Jan. 1901, relieving Asst. Surgn. Balia Singh.

Hosp. Assts. Gela Ram, on transfer from Mooltan, and Abdulla Khan, on transfer from Karnal, were placed on plague duty in the Sialkot and Gurdaspur Dist. from the 12th Jan. 1901, respectively.

CENTRAL PROVINCES.

Civil Hosp. Asst. Sheoram, on gen. duty at Raipur, is temp. apptd. to the Simga Branch Dispy. in that dist.

Civil Hosp. Asst. Vishram Sitaram, attached to the Simga Branch Dispy., is granted privilege leave for two months and fifteen days from the date he is relieved of his duties by Civil Hosp. Asst. Sheoram.

The services of Civil Hosp. Asst. Gadadhar Mahanti being no longer required for famine duty (in the Civil Dist.) in the Bilaspur Dist., he is directed to do duty under the orders of the Civil Surgn. of that dist.

Civil Hosp. Asst. Ganga Parashad Singh, attached to the Civil Station Dispy., Nagpur, is granted privilege leave for 15 days from the 15th Jan. 1901, or the subsequent date on which he is permitted to avail himself of it.

Civil Hosp. Asst. Brijlal Purohit, on gen. duty at Nagpur, is apptd. to the Civil Station Dispy., Nagpur, during the absence, on leave, of Ganga Parashad Singh.

On being relieved of his famine duties in the Bilaspur Dist., Civil Asst. Surgn. Harnam Das was directed to do duty under the orders of the Civil Surgn., Bilaspur.

On being relieved of his famine duties in the Raipur Dist., Civil Asst. Surgn. Lala Mathura Das was directed to do duty under the orders of the Civil Surgn., Raipur.

Civil Asst. Surgn. Lala Mathura Das, on gen. duty at Raipur, is deputed on special duty at the Birman Fair, in the Narsinghpur Dist.

Civil Hosp. Asst. Darathi Swain, on gen. duty at Raipur, is transferred to Jharsogra, in the Sambalpur Dist., for plague duty.

Civil Hosp. Asst. Benode Bihari Maite is directed to do duty under the orders of the Civil Surgn., Hoshangabad.

Hosp. Asst. Bhagwant Din Misra, attached to the Jail and Police Hosp., Hoshangabad, is granted privilege leave for three months from the 1st March 1901, or the subsequent date on which he may be permitted to avail himself of it.

Civil Hosp. Asst. Benode Bihari Maite, doing duty under the orders of the Civil Surgn., Hoshangabad, is temp. posted to the Jail and Police Hosp. of that dist. during the absence, on leave, of Civil Hosp. Asst. Bhagwant Din Misra.

Civil Hosp. Asst. Arunoday Pathak, on gen. duty at Chanda, is temp. apptd. to the Jail Hosp., Chanda.

On being relieved of his duties at the Jail Hosp., Chanda, Civil Hosp. Asst. Imam Khan is temp. apptd. to the Makra State Dispy., in the Hoshangabad Dist., vice Civil Hosp. Asst. Ramdin, proceeding on leave.

Major H. E. Banatwala, I. M. S., is apptd. to officiate as Civil Surgn. of the Nimar Dist.

Major H. E. Banatwala, I. M. S., Offg. Civil Surgn., Nimar, is apptd. to the executive and med. ch. of the Nimar Jail.

Capt. A. G. Hendley, I. M. S., Civil Surgn., is posted to the Hoshangabad Dist.

Capt. A. G. Hendley, I. M. S., Civil Surgn., Hoshangabad, is apptd. to the executive and med. ch. of the Hoshangabad Jail.

On being relieved by Capt. A. G. Hendley, I. M. S., Capt. C. H. Watson, I. M. S., Offg. Civil Surgn., Hoshangabad, is transferred in the same capacity to the Chanda Dist.

Capt. C. H. Watson, I. M. S., Offg. Civil Surgn., Chanda, is apptd. to the executive and med. ch. of the Chanda Jail.

Lieut.-Col. W. A. Quayle, I. M. S., is confirmed as Civil Surgn. and Supdt., Lunatic Asylum, Nagpur, from the 27th Aug. 1900.

Major H. E. Banatwala, I. M. S., is confirmed as Civil Surgn., Nimar, from the 27th Aug. 1900.

Civil Hosp. Asst. Brijlal Purohit did duty under the orders of the Civil Surgn., Bilaspur, from the 16th to the 25th Oct. 1900.

Capt. W. D. Sutherland, I. M. S., Civil Surgn., Raipur, has been granted by Her Majesty's Secy. of State for India furlough on med. certificate for four months.

Civil Asst. Surgn. S. J. N. Kotak was placed on gen. duty at Chanda from the 1st to the 13th Dec. 1900.

First Class Asst. Surgn. James William Hogan to be Senior Asst. Surgn., with the honorary rank of Lieut., subject to Her Majesty's approval, from the 1st Nov. 1900, consequent on the retirement of Senior Asst. Surgn. and Hony. Major T. H. Hill.

BURMA.

Hosp. Asst. U. C. Chakrabatty relinquished ch. at the Police Hosp., Bhamo, on the 10th Jan. 1901, and assumed ch. at the Outpost Hosp., Wharabum, Bhamo dist., on the 14th Jan. 1901.

Hon. Asst. Attar Ali Khan, on transfer to Kindat, relinquished ch. at the Outpost Hosp., Tamu, Upper Chinthein dist., on the 2nd Dec. 1900.

Hon. Asst. Kiebori Mohan Majumdar, having passed in the English qualification examination on the 2nd Nov. 1900, is entitled to pay and allowance as such from that date.

Hon. Asst. Paramanand Satyal relinquished ch. of his duties with the Southern Chin Hills Column on the 19th Dec. 1900, and assumed ch. at the Civil Hosp., Palam, Chin Hills, on the 23rd Dec. 1900.

ORIGINAL ARTICLES.

SOME OBSERVATIONS ON PLAGUE AND ITS TREATMENT WITH LUSTIG'S SERUM.*

By N. H. CHOKSY, KHAN BAHADUR,

M.D. (HON. CAUSA), FREIBURG :

*Licentiate in Medicine and Surgery, University of Bombay,
Chevalier of the Crown of Italy, Special Assistant
Health Officer in charge Arthur Road
Hospital, Bombay.*

MR. PRESIDENT AND GENTLEMEN,—Your Secretary having kindly extended to me an invitation, through Lieutenant-Colonel WILKINS, to read a paper on the application of LUSTIG'S serum in plague before this Society, I have with pleasure acceded to his request, inasmuch as I hold that no discussion on the subject would be without its due weight and value in finally assigning to this serum its proper place in Sero-therapy. Before entering into the subject of the serum treatment, I would crave permission to preface a few general observations on the nature and types of plague, its mortality, and the influence of race, age and sex, etc., on the same. All these have an important bearing on the results of the serum treatment. With this purpose I shall draw upon the records of the Arthur Road Hospital, which has received nearly 6,000 plague patients during the four epidemics of plague, about 4,000 of whom have been under my personal observation, and the rest under those of my various assistants, but under my general supervision. And I shall supplement these with some facts derived from the records of the Maratha and Modikhana Hospitals that receive—more especially the former—a better class of patients, belonging mostly to the labouring classes and mill-hands, than those admitted in the institution under my charge, and who consist mainly of the lowest stratum of Hindu society—the waifs and strays of the city, the ill-fed and the half-starved, picked up from the roadside or drawn from the alleys and bye-lanes where they do most congregate. The bulk of the following observations may, therefore, be assumed to be typical of plague as seen in its worst and most fatal aspects, and they do not apply to the better classes of Hindus, or to other communities, who suffer less in proportion to their numbers, and in whom the mortality is comparatively low.

THE TYPES OF PLAGUE.

For purposes of clinical observation, plague may be divided into the seven following : types (1) *Pestis minor*; (2) *Pestis ambulans*; (3) Simple bubonic plague; (4) Septicæmic plague; (5) Pneumonic plague; (6) Cellulocutaneous plague, and (7) Non-typical forms of plague, such as those associated with relapsing fever, malaria, small-pox, measles, cholera, phthisis, etc. The proportion in which these types occur in hospital practice is found from an analysis of 11,650 cases of plague to be as follows :—

(1) <i>Pestis minor</i> ...	0.00 per cent.
(2) <i>Pestis ambulans</i> ...	0.50 "
(3) Simple bubonic plague ...	77.65 "

(4) Septicæmic plague ...	14.25 per cent
(5) Pneumonic plague ...	4.10 "
(6) Cellulo-cutaneous plague†	2.50 "
(7) Non-typical and mixed plague	1.00 "
	100.00

Pestis Minor and Pestis Ambulans.—*Pestis minor* and *pestis ambulans*, however interesting they may be from an epidemiological point of view, do not call for any special remarks. No cases of the former ever seek hospital aid, and in the latter they occasionally resort to hospitals if the buboes happen to suppurate—as they sometimes do—and relief is required.

Simple Bubonic Plague.—Simple bubonic plague forms 77.65 per cent. of all cases, and is by far the most important type of plague. It is characterised, as its name implies, by the development of buboes in various parts of the body, and runs a definite course extending from eight to eleven days. And any subsequent rise of temperature after the eleventh day are generally due to supuration of buboes or other complications.

The temperature curve, which practically consists of two curves, with an apyrexial interval, which may extend from a few hours to twenty-four or even more in some cases, is very peculiar, and is so unlike that of any other disease, that it is quite characteristic and it has an important bearing on the behaviour of the serum, as I shall point out later on. There is usually a steady rise of temperature till the evening of the third or fourth day, followed by a drop of two, three or more degrees on the morning of the fourth or fifth day respectively. The first curve ends here. The second curve begins a few hours after, and generally on the evening of the same day the temperature rises suddenly high, to the same extent as on the evening previous or even higher, and coincidently with this all the symptoms become grave, and death generally supervenes after this secondary rise or reaction. If the patient is, however, going to recover, the reaction is not so high; or, if high, it soon subsides, the temperature drops again the next morning and it goes down steadily by gradually decreasing morning remissions and evening exacerbations until the normal is reached on the morning of the eighth, ninth, tenth, or eleventh day. There are many deviations from this, as in every other disease that runs a well-defined periodic course, but it would take up too much of time to discuss them in detail. It would be quite enough to state here that the prognosis of the case greatly depends upon the termination of the first curve. The later it is, the better for the patient, and *vice versa*. And it has been found that for the serum to be effective, the patient must receive a large dose before the termination of the first curve, and the longer the injection is delayed, the less the chance of recovery. The timely use of the serum before the temperature falls contributes to lessening the shock consequent on the fall, which sometimes is very rapid and great, and may vary from 4 to 7 degrees or more, and moderates the secondary reaction which is so dangerous and so fatal a feature of plague. The buboes that develop

†During the last epidemic (1899-1900) the proportion was 2.61 per cent., i.e., about one per cent. higher than the average.

*Read before the Bombay Medical and Physical Society.

in different parts of the body have great influence in determining the mortality in this type. An analysis of 2,500 cases of buboes shows that they exist in the following relative frequency:—

Femoral	...	...	30.87 per cent.
Inguinal	...	...	23.25 "
Axillary	...	...	21.85 "
Multiple	...	...	13.95 "
Cervical	...	...	6.72 "
Parotid	...	...	1.68 "
Other situations	...	...	1.68 "
<hr/>			
100.00			

The average mortality rate in simple bubonic plague is 77.25 per cent., but in individual position of buboes it may vary from 70 to 81 per cent., as follows:—

	Mortality.		
Axillary	81.29 per cent.
Cervical	78.87 "
Inguinal	77.62 "
Multiple	76.87 "
Femoral	72.56 "
Other situations	71.42 "
Parotid	70.34 "

The above mortality rates are again considerably influenced for the worse by the development of secondary pneumonia, or the occurrence of acute oedema of lungs—one of the most common causes of death in bubonic plague—and in the case of cervical and parotid buboes by extensive infiltrations—serous or hæmorrhagic—in the tissues of the neck, pharynx and larynx. Axillary buboes, again, if accompanied with extensive infiltration, are more fatal than the average of 81.29 per cent.

Septicæmic Plague.—Septicæmic plague is a type of plague in which the bacillus pestis gains a direct entrance into the blood, and in which the patient succumbs before any buboes can develop. Its course is more rapid than that of simple bubonic plague, extending at the utmost to six or seven days—usually from three to four—and if the patient survives after the sixth or seventh day, a bubo generally appears shortly before death. The temperature curve is also different to that of simple bubonic plague. The temperature, as a rule, rises sharply and suddenly to 104° to 106°, or even higher, on the evening of the first day, and drops to normal or sub-normal the following morning: and these morning and evening remissions and exacerbations may continue until death supervenes. In some cases the temperature remains high after the first rise, and the fluctuations between the mornings and evenings do not exceed a degree or so, whilst in other cases the tendency is to remain between 99° and 101°. There are no buboes in this type, and plague bacilli can be obtained in abundance from a drop of blood. If the patient's resisting power is so great as to tide him over the first four or five days, buboes appear simultaneously on various parts of the body. Hæmorrhages from the lungs, stomach, intestines and kidneys are very common in this type. The mortality rate in 1,562 cases was found to be 89.62 per cent.

Pneumonic Plague.—This form of plague, to which Major CHILDS, I.M.S., drew our attention in 1897, is the most fatal; the mortality in 514 cases was found to be 96.69 per cent. It exists variably in different epidemics, and in no two does it appear in anything like a fixed ratio. Its duration is short, from four to seven days—usually about four to five—and it is characterised by high fever, rapid and distressed breathing, absence of buboes; localised lobular pneumonia in isolated greyish patches, distributed over one or more than one lobe, with hæmorrhagic sputum, which may be frothy and copious, or scanty, and in small pellets of almost pure congealed blood, or at times it may be totally absent. Almost pure cultures of plague bacilli can be easily obtained from the sputum, and it is obvious that it is not only therefore the most fatal, but also the most dangerous and highly infecting type of plague.

Cellulo-Cutaneous Plague.—In the clinical report on plague which I published in 1897, I described, under the heading of *Cellulo-Cutaneous Necrosis*, large necrotic patches involving the skin and the subcutaneous cellular tissue. Their origin was then obscure, but I surmised that they originated in the small umbilicated blisters which are occasionally seen, and sometimes constitute the only external evidence of plague. Further observation during the last three epidemics has not only confirmed this, but has led to the knowledge that these necrotic cases form by themselves not only a distinct type, but also a comparatively milder type of plague, and which I propose to call *Cellulo-Cutaneous Plague*.

It is now an accepted belief that in most cases of plague one of the principal channels of infection is through the skin. The bacilli, soon after they gain an entrance thus, are conveyed to the nearest lymphatic glands without leaving any trace at the point of entrance. In this instance, however, they remain *in situ*, and proliferate and give rise to the large advancing necroses. A blister, with or without an umbilication, generally the former, forms at the point of infection. Its contents are at first serous and perfectly clear: they may become, however, turbid and purulent, and even hæmorrhagic. Suspended from the central umbilication is a ooz which reaches to the floor of the blister. The outicle breaks, the contents are discharged, and a reddish, angry-looking circular patch remains. Within a few hours it becomes of a dark-greenish hue, cold to the touch, hard, and almost leathery, the margin being continuous with the surrounding healthy skin. The patch then begins to enlarge and advances from the circumference, and its size increases day by day, until a line of demarcation forms. The necrosis appears to be tied down firmly in the centre, which appears depressed, the edges being elevated. Around the circumference a hard, red, angry-looking and raised areola is formed, sometimes covered over with minute sericles. The necrosis might go on advancing till large areas of the body surface may be involved, the largest hitherto seen covering nearly 30 square inches. The size may vary from an inch or even less in diameter to eight or twelve inches. Large necroses covering the whole of the gluteal region, the

entire calf of the leg, or the interscapular space, have been noticed, and they have been found also on the scalp, neck, face, chest, abdomen, loins, thigh, leg, dorsum of foot, vulva, scrotum, etc. After the line of demarcation has formed, removal of the necrosis is fairly easy, if the sloughs underneath have separated, and when the whole of any such necrosis is removed en masse by the knife or scissors, a large unhealthy-looking saucer-shaped depression is left, with long and irregular shreds of necrosed tissue, pus and blood, and which under appropriate treatment becomes healthy-looking within three or four days, and heals fairly rapidly by granulation, and without the aid of skin-grafting. If the necrosis goes on, however, steadily enlarging, and the line of demarcation does not form by itself, it is possible to restrict its further spread by subcutaneous injections of sublimate.

The appearance of buboes in this type of plague is variable, and depends upon the situation of the blisters and the period when the plague bacilli gain entrance into the lymph channels from the local seat of mischief. If the latter is somewhat removed from the neighbourhood of the large lymphatic glands, and some time elapses before the bacilli enter the lymph current, the buboes appear later, as secondary buboes (from six to ten days after the necrosis); the systemic reaction is not so acute as in simple bubonic plague, the fever is moderate and the case runs a somewhat protracted, but a comparatively favourable course in spite of extensive necrosis. If, on the other hand, the blister is in the neighbourhood, the necrosis is moderate in size, buboes develop within two or three days, and the case becomes, to all intents and purposes, of bubonic type, but milder in intensity. In the latter case the mortality, though generally determined by the position of the bubo, is less than the average of bubonic type; whereas in the former it may range from 50 to 60 per cent. In fact this type of plague has the lowest mortality, the average rate being about 62 per cent. only during the last epidemic, i. e., 18 per cent. less than the average, and 15 per cent. less than in the simple bubonic type. It is possible to abort cellulito-cutaneous plague, if seen sufficiently early, and before necrosis has been set up by subcutaneous injections of sublimate near the seat of mischief, and I have been able to do so in three or four cases.

That the process above described is the result of the local action of the bacillus pestis has been demonstrated often and often. Almost pure cultures of the bacillus have been obtained from the blisters and from the advancing margin of the necrosis; and a timely confirmation of this local necrotic action of the bacillus pestis comes from KLEIN.⁶ In his introductory remarks as President of the Section of Pathology at the annual meeting of the British Medical Association last month, he describes the share which microbes have in determining inflammation, which, he says, is brought about (1) by the toxic products of the microbes, or (2) by the protoplasm of the microbes themselves. The diphtheria bacillus, the tubercle bacillus, the tetanus bacillus and the typhoid bacillus possess the property

of setting up inflammatory phenomena, locally and generally, through the action of their toxic products. The tubercle bacillus, the cholera vibrio, the bacillus pestis, etc., act similarly through the action of their dead protoplasm. In addition to producing inflammation and progressive or retrogressive changes of tissue elements, some of these pathogenic germs, along with pathogenic cocci, possess the property of causing progressive local necrosis, such as the diphtheria bacillus, and the microbes associated with tubercle, glanders, leprosy, etc., to which I would beg to add the bacillus pestis. KLEIN says that this progressive necrosis of the tissues, following typical symptoms of inflammation, is the result of the local action of the bacilli, and so long as they are in sufficient numbers and of sufficient virulence, and so long as their multiplication proceeds, the necrosis of the tissues spread into larger and larger areas. This accounts for the necrosis of very large size that we see in plague. A further confirmation that the dead protoplasm of the bacillus pestis brings about the necrosis is furnished by the horses immunised for the preparation of LUSTIG's serum, as they show the same necrosis after injection with the immunising substance or the nucleo-proteid, which is nothing but the dead protoplasm of the plague bacillus. And so also in monkeys, the same local effects can be observed after injection with the nucleo-proteid.

If I have devoted a little more time to this curious but minor phase of plague, my excuse is its great clinical and pathological importance, and the fact that attention does not appear to have been hitherto drawn prominently to it.

Non-Typical and Mixed Forms of Plague.—Three cases form about 1 per cent. of total admissions. In my report of 1897, I had referred to the association of relapsing fever, malaria and phthisis, and the same has been confirmed by further observation. In several instances plague bacilli form the bubo, and spirilla from the blood of the same patient have been demonstrated. Malaria has often and often been proved to exist in association with plague; during the epidemic of measles in 1898-99, several cases of plague with a distinctly measles rash were noted; and during the present year small-pox and cholera have been observed associated with plague. Small-pox developing in a case of plague, and plague appearing during the progress of small-pox, have been noted; and latterly a mixture of plague (pneumonic as well as bubonic type) and cholera has also been observed. Plague has also been noted to be associated with acute venereal infection, and some fatal cases with hard and soft chancre have been observed.

MORTALITY IN PLAGUE AND THE INFLUENCE OF RACE, AGE, AND SEX.

The mortality rates in the principal types of plague may therefore be put down as follows:—

	Mortality.
Simple bubonic plague	... 77.25 per cent.
Septicæmic plague	... 89.62 "
Pneumonic plague	... 96.69 "
Cellulo-cutaneous plague	... 62.00 "

The average mortality in plague has not been what it is to-day. During the epidemic of 1896-97 it stood

⁶ Vide British Medical Journal, August 6th, 1900.

at about 61.53 per cent. at the Arthur Road Hospital, and 64.5 per cent. and 68.28 per cent. at the Government House and Grant Road Hospitals respectively. The second epidemic of 1897-98 showed a higher rate, from 78.55 per cent. at the Arthur Road Hospital to 79.26 per cent. at the Grant Road Hospital. The third epidemic of 1898-99 gave a still higher rate, the lowest being 78.97 per cent. at Arthur Road Hospital, and the highest 81.40 per cent. at the Modikhana Hospital. The average mortality in 5,836 cases treated at the Modikhana, Maratha, and Arthur Road Hospitals during 1898-99 was 80.39 per cent. During the fourth epidemic of 1899-1900 the Maratha Hospital shows a mortality of 80.95 per cent. in 2,599 cases, and the non-serum cases at the Arthur Road Hospital have a mortality of 79.54 per cent. So that, for all practical purposes, the normal mortality rate of plague in our public hospitals may safely be put down at 80 per cent. The influence of race, age and sex may be gathered from the following data:—

Race.	Mortality rate.
Europeans ...	30 to 40 per cent.
Eurasians ...	35 to 45 "
Parsies ...	45 to 55 "
Mahomedans (Higher classes)	50 to 60 "
Mahomedans (Lower classes)	60 to 65 "
Native Christians (Goanese)	60 to 65 "
Hindus (High caste)	65 to 70 "
Hindus (Low caste)	75 to 85 "

An analysis of 6,000 hospital cases gives the following mortality rates according to sex and age amongst Hindus, Mahomedans and Native Christians. More than 5,000 of them were Hindus:—

	Males.	Females.	Children.	Total
Hindus ...	79.71	77.47	69.57	75.33
Mahomedans ...	64.76	78.04	58.82	65.73
Native Christians ...	63.77	68.36	58.97	64.34

The mortality in males of all the races is the highest, and in children the lowest, the difference varying from 5 to 10 per cent. between them. The mortality in Mahomedan and Christian females is apparently higher than in males, because of their smaller number.

LUSTIG'S CURATIVE SERUM.

It is unnecessary to detain you here with any detailed account of its preparation, as the same has been published in several medical journals. The observations with the application of the serum were begun in March 1898, with the object of determining whether it possessed any value, and if so, what, and whether its use was limited or could be extended to all cases? It may be noted in passing that this inquiry was approached in a spirit of wholesome scepticism, born of our knowledge of plague during the preceding two epidemics, and the high mortality and rapidly fatal termination that characterised it. Nor was there any eagerness or undue zeal displayed in either prematurely pushing its claims, or parading the early results. And it was only after long and patient observation, exceeding over a period of more than three months, that it was possible to formulate any opinion as to its value. The clinical effects of its action were

so well marked, that it left no doubt in our minds that it had some specific influence on the course of plague.

The so-called "Selection" Method.—It is customary, whenever a new method of treatment has to be tested, to make observations on patients that are fairly typical of the disease, and have fairly reasonable chances of recovery. It is not customary, on the other hand, to test it in those that are in the throes of death, or that have crossed the Rubicon. It is also usual to exclude from such preliminary investigation all those disturbing factors that would in ordinary course obscure the results. And as it was found from our previous experience that patients in whom the circulation had become so feeble as to show signs of impending heart failure, as well as those in whom heart failure had already commenced, and the pulse had become imperceptible at the wrist, were not amenable to any treatment that we could apply, it was decided to exclude them from these observations. So also did we exclude the latter-day cases—convalescents and semi-convalescents—as they were practically on the high road to recovery, and did not require any adventitious help. Eliminating, therefore, the above cases, there remained for observation the really acute cases, which have been called "the selection" cases. It was said that the favourable results of these preliminary observations were due to the selection of *mild* cases. Allow me to point out that the term *mild* in connection with a disease like plague, with a normal mortality rate of 80 per cent., is quite incompatible and a misnomer. There is no grosser libel on plague than to characterise a plague case *mild*. For the mildness or otherwise is not to be, and cannot be, determined when the patient comes under treatment, but after the disease has run a certain course, and I hold that it would be certainly bold of any one, however wide and varied his experience of plague may be, to declare a case *mild* within the first three or four days of illness. And if I have been credited with selecting *mild* cases, I cannot certainly lay claim to any such super-human prescience. In no disease is it easier to tell what patient is going to die, and in none more difficult as to who is going to recover. Under these circumstances, I submit, the words "selection" and "mild" were hardly appropriate.

The clinical phenomena that manifested themselves after the injection of serum were:—Moderation in the intensity and duration of fever; improvement in the state of the circulation as shown by increase of arterial pressure; diminution in the size of, and lessening of pain in, buboes; cessation in the progress of advancing lymphatic infection; clearing of the mental faculties; and a general improvement in the condition of the patient. In those cases where it did not ultimately save the life of the patient, it produced great amelioration in his condition and prolonged life, and time after time patients in semi-comatose condition have been observed to improve to such an extent as to be scarcely recognizable. It was also noted that the effects of the serum were not so evident in cases of septicaemic or pneumonic plague, or in those cases that have a naturally very high rate of mortality. On the other hand, its value was quite apparent in those cases that have a

comparatively lower mortality rate, and which was still further reduced by its use.

The observations on the above lines were intermittent on account of the supply of serum being limited as well as irregular, and there were long intervals during which no serum was available. They extended from March to October 1898, and again from February to April 1899, during which period 403 patients were treated, of whom 249 died and 194 recovered, the recovery rate being 38.21 per cent. During the same period 1,190 patients were under ordinary treatment, of whom only 233 recovered, the recovery rate being 19.5 per cent. The difference, therefore, in favour of the serum treated cases was nearly double. The Maratha and Modikbana hospitals received during the above period 4,762 patients who had a recovery rate of 19.7 per cent. There is thus a remarkable coincidence in the recovery rate between the non-serum cases at the Arthur Road Hospital and all the cases at the two latter hospitals. If it be conceded that the type of the disease, and the nature of the cases admitted into these hospitals, were the same—as they actually were—to what should we ascribe the enhanced recovery rate of the serum cases? It could not be ascribed to the so-called "selection" cases or "mild" cases, for were it so, the recovery rate in the non-serum cases ought to have reached a vanishing point; whereas it was not lower than the average recovery rate of the other hospitals. It would be beside the purpose of this paper to enter into any lengthy argument on these points, and to those interested in the subject I would refer to the able report of Dr. POLVERINI, published last year, as it contains all the replies to any arguments that may be advanced.

PRELIMINARY CONCLUSIONS.

The following preliminary conclusions were deduced from the above observations:—

1. That the serum exerted a distinctly favourable influence on the course of plague.
2. That where it failed to avert death, it prolonged life, and temporarily ameliorated the condition of the patient.
3. That it did not exert much effect in those types of plague that are characterised by an extremely high mortality rate.
4. That its application therefore was mainly, though not exclusively, limited to the bubonic type of plague.
5. That there were limitations to its use in hospital practice, as about 50 per cent. of all admissions die within 48 hours, 20 per cent. recover naturally, and there remain about 30 per cent. that can be influenced by the serum treatment.
6. That its use would be more effective in private practice, as early cases would be treated, and that encouraging results, giving a recovery rate of 59.37 per cent. in 32 patients, have been obtained up to now.
7. That it exerts no deleterious influence on the patient, and could be injected into the healthy not only without any ill-effects, but with positive good, as it is capable of conferring *immediate but temporary immunity* against plague; this immunity may last from 10 to 15 days.

THE ALTERNATIVE METHOD.

Some doubts having been expressed on the validity of the results of the above observations, and the conclusions they led to, and as it was anticipated that more accurate data would be available if no attempts were made to exclude any class of cases, and by treating every alternate patient in the order of admission into hospital, it was resolved to conduct a series of 1,000 observations—500 cases to be treated with the serum and 500 alternately with them by ordinary treatment. There were certain objections and fallacies involved in this method, to which I drew attention before the observations were begun. Whilst discussing this method of treatment with Professor A. E. WRIGHT, of the Indian Plague Commission, I had the honor to draw his attention to the complex nature of the affection, and the number of wide and varied factors that contribute to influence its mortality rate, and to point out by actual data furnished from the hospital records how race, sex, age, the type of plague, the position of buboes, the date illness at commencement of treatment, and the general condition of the patient, including the state of his circulation, influenced plague mortality. I further contended that for any set or sets of observations on the alternate system, it is quite indispensable, in order to secure accurate results, to so arrange that a serum case and a control case should be—if not identical, at any rate approximately so, as regards the above important factors, and that so long as these did not equalise so long would the results be the less accurate. Professor WRIGHT had to admit the force of these contentions, but said that, under the conditions prevailing in the Bombay hospitals, it would not be feasible to have such exact controls, but the probabilities were that in a series of 1,000 cases the conditions would fairly equalise. We shall see later on how this anticipation has been realised in actual practice. Moreover, it was also thought that the moribund and convalescent patients would balance each other in either series.

The observations on the alternate system extended from May 1899 to end of July 1900—June 1899 being excepted. During this period 484 cases were treated with the serum, and 484 were taken as controls and were under treatment by ordinary methods. The former had 155 recoveries, equivalent to a recovery rate of 32.03 per cent., whereas the latter had 99 recoveries, that is, a rate of 20.46 per cent.; there was thus a difference of 11.57 per cent. in favour of the serum cases. It would take me too long to enter here into any detailed analysis of these 968 cases, and as my friends Drs. POLVERINI and MAYR have just completed a comprehensive report, which will soon be published, I would refer you to the same. All that I need state here is that the fallacies to which we drew attention before the alternate system was begun appear themselves most glaringly in the results, and in fact Drs. POLVERINI and MAYR have been enabled by these very statistics of the alternate system to expose the errors incidental to such a system when dealing with such a complex disease like plague, and thus to confirm our prognostications. The factors to which I drew your attention above as likely to influence and vitiate the final results have not become equalised in

either series, and to take one instance alone, the serum cases included 139 moribund patients that died within 24 to 27 hours of admission, and 29 convalescents that recovered, as against 147 moribunds and 38 convalescents on the control side. If, for purposes of argument, we ignore the moribunds from our calculation, as they were bound to die under any case, and take stock of the convalescents only that tended to obscure the results, and eliminate the same from either series, the serum cases show a recovery rate of 27.70 per cent.; whereas the controls have a rate of only 13.68 per cent. only, i. e., nearly half that of the serum cases. If both the moribunds and convalescents be excluded, the recovery rate for the serum cases would stand as 39.88 per cent., as against 20.41 per cent. in the controls. Or to put it in other words, the recovery rate is enhanced by 56 per cent. in all cases treated alternately; by 95 per cent. if the moribunds and convalescents be excluded, and by over 100 per cent. if the convalescents alone be eliminated. A curious confirmation of the beneficial effects of serum is demonstrated by the cellulose-otaneous type of plague, which occurred somewhat to a larger extent during the last epidemic. Thirty-nine cases of this type came under observation, and of these 18 received the serum treatment, and 21 were treated by ordinary methods. Of the former nine died and nine recovered, the recovery rate being exactly 50 per cent.; whereas of the latter 13 died and eight recovered, the recovery rate being 38.10 per cent., that is, the difference between the recovery rates of the two sets of cases was 11.90 per cent.—about the same as the difference shown on the total of all observations. And thus even this small series of a peculiar type of plague proves beyond a shadow of doubt the influence of serum in reducing the mortality rate.

It may be added that during the above period there were 38 cases that could not be included in one series or the other on account of the difficulty of diagnosis during life, or rapid death when kept under observation. All these cases were subsequently verified to be plague after death—and in only six that recovered out of them the course of the affection left no doubt as to their nature. These were called extra cases and have remained totally unconnected with the above.

The results of these observations have confirmed the preliminary conclusions above stated, and a great step in advance has been made by the further knowledge gained during this enquiry. That the influence of the serum treatment is demonstrable as a whole in reducing the total mortality of a hospital can be shown by a comparison with the records of other hospitals. The total mortality rate of the above 1,006 cases (serum, control, and extra) at the Arthur Road Hospital was 74.15 per cent. During the same period the Maratha Hospital had 2,599 cases, and the mortality rate was 60.95 per cent. So that with less than half the number of patients treated with the serum at the Arthur Road Hospital, the mortality rate of the institution was 6.80 per cent. lower than that of the Maratha, that receives a certainly better class of patients—that is to say, that if all the patients at the former had been treated with

the serum, the difference in the mortality rate between the two institutions would have been over 13 per cent.

MODE OF APPLICATION OF THE SERUM—GENERAL TREATMENT, ETC.

I will not weary you with all the details that we had to work out for ourselves, and without any previous experience as regards the application of the serum, the best method for the same, &c., &c. The results of our experience have been embodied in the accompanying copy of instructions prepared for private medical practitioners, to whom it is intended to issue the serum for use in private practice. I would only add that, subsequent to the date of the framing of these rules, some further observations have been made, which tend to show that two or three large doses of the serum, injected early and within short intervals, are productive of greater good. In one very severe case of plague, seen on the evening of the fourth day, with a temperature of 105° and feeble pulse, with double sub-maxillary, double posterior cervical, suprahyoid central, and supra-sternal buboes accompanied by infiltration in the soft parts of the neck and in the pharynx, with oedema, glottitis, dyspnoea, and dysphagia, I administered 240 C.C. (in 4 doses of 60 C.C. each) within 36 hours, with the happiest results. The patient made a steady recovery, without any untoward complications, and without suppuration. So also in some cases treated within a few hours of the onset of the symptoms, big initial injections of 100 C.C. have almost out short the attack. In a recent case treated at the Arthur Road Hospital, a Hindu female dwarf, aged about 20, received about 80 C.C. in two injections within 24 hours with very satisfactory results. The following are the instructions above referred to, and with them is attached a special chart for filling in the necessary particulars:—

Instructions for the Treatment of Plague with Professor Lustig's Curative Serum.

- I. *The Serum*.—1. Each phial contains 80 C.C.
2. No antiseptic is added to the serum.
3. The presence of coagulum, flakes or blood, is no contraindication to its use.
- II. *The Syringe*.—1. The syringe and needles should be boiled before injection and washed out with 3 per cent. carbolic lotion after use. They should be kept scrupulously clean.

III. *Method of Injection*.—1. Injections should be made subcutaneously and on the outer side of thigh or arm, as far as practicable.

2. It is preferable not to give a second injection on the same limb till at least 48 hours after the first.
3. Cleanse the skin thoroughly with soap and water, and carbolic, sublimate, or lysol lotion before injecting.
4. After withdrawing the needle, seek up the puncture with collodium and cotton wool.

IV. *Mode of application of the serum*.—1. As soon as the diagnosis has been made, inject 50 to 60 to 100 C.C. in adults; for children under twelve half the dose. For infants 10 C.C. The patient must be injected as early as possible. Much valuable time is lost in waiting.

2. Injections should be given in the morning and repeated after 24 hours; if the patient is seen for the first time the afternoon or evening, and injected, the next injection should be given in the following morning.

3. The quantity to be injected on subsequent injections should depend upon the range of the temperature on the previous evening and the general condition of the patient. If the temperature is the same as on the evening of the day of the first injection, 40 to 60 C.C. may again be injected; if lower, then 80 C.C. or less.

4. The quantity of the serum injected should be gradually decreased day after day, as above, until the temperature reaches to normal in the morning.

5. There is a drop in temperature of one to three degrees or more during the course of plague, and it may occur on any day from the second to the seventh. The injections should not be discontinued when this happens.

6. Injections in the evening are not necessary, unless secondary buboes develop or the temperature goes up suddenly higher than on the evening previous; 30 to 40 C.C. may be injected under these circumstances.

7. If the temperature on any evening is found to be lower than in the morning, it is a favourable indication, and the quantity of serum injected the following morning may be safely reduced.

8. Six to eight injections may be required to effect a cure.

9. The total quantity required for a cure may vary from 150 to 300 C.C. depending upon the severity of the case, complications, &c., and the strength of the serum used.

V. *General and Local Treatment*.—1. The following lines of general and local treatment are suggested for cases treated with the serum:—

Stimulants.—Brandy or rum in doses varying from 2 drachms to half an ounce or more, and well diluted, should be administered every two hours. The quantity of alcohol required for each case would depend upon the habits and the general condition of the patient.

2. *Nourishment*.—Milk or milk and congee should be given every two hours in quantities varying from 4 to 8 ounces.

3. *Cardiac Remedies*.—If the patient's condition when first seen is very low, or if it becomes so in the course of treatment, and if the heart's action is impaired as shown by a weak, thready, readily compressible pulse, or if the pulse is intermittent or fluttering and imperceptible, cardiac remedies should be administered *hypodermically* in addition to the serum injections; but these should be used with great caution and at intervals of six to eight hours or longer.

4. *Control of Temperature*.—Avoid, as far as possible, any drug treatment. Ice-bag to the head, sponging or wet pack should be the means of reducing high temperatures.

5. *Complications*.—Treat all complications on general principles.

6. *Local Treatment*.—Avoid all irritating applications to the bubo; apply ice over the same.

The above facts comprise all the data we have at hand up to now on the influence of LUSTIG's serum in the treatment of plague, and they have so far satisfied the authorities concerned that preparations have already been made to make it on a larger scale for the next epidemic, and it has now been determined to revert to the former method of treatment, but on a larger scale, i. e., to treat all, exclusive of the moribunds and convalescents.

Comparison with Sero-Therapy in Diphtheria.—The only disease in which sero-therapy has given encouraging results up to now is diphtheria. But for purposes of comparison, diphtheria and plague stand wide asunder. They are so dissimilar in their duration, fatality, and mode of death—plague being by far the graver of the two—that comparison can only be instituted under large reservations. Dr. ALEXANDER ANDERSON, of Sheffield, has given^{*} some interesting data of mortality statistics in diphtheria, both before and after the introduction of the antitoxin treatment. The average mortality in the Metropolitan Asylums Board Hospitals during the post re-antitoxin period (1888 to 1894) was 30.3 per cent. in 11,598 cases; from 1895 to 1898 it became reduced under the antitoxin treatment to 18.4 per cent. in 20,882 cases—a reduction of 12 per cent. And I would put it to you, which is the greater achievement—a reduction of 12 per cent. mortality in a disease with a natural mortality of only 30 per cent., after over a decade of observation and research, or a reduction of 12 per cent. in a disease with a natural mortality rate of 80 per cent. within three years of the inception of sero-therapy in the same? There could be but only one reply to this, and that is sufficiently obvious.

In this connection I should like to quote a few remarks of Dr. ANDERSON on sero-therapy in diphtheria, which are so opposite to sero-therapy in plague, and which, *mutatis mutandis*, word for word might be made applicable to plague:—

"I am strongly of opinion," says he, "that antitoxin ought to be given in every case, however mild, unless it is seen too late for the remedy to be of any value. The objection urged against the use of antitoxin in mild cases, that by other methods of treatment 60 to 70 per cent. of cases will recover, and that there is therefore no necessity to give antitoxin in these sixty or seventy cases, does not seem to me to be sound reasoning. In any individual attack of diphtheria, we are dealing with an unknown quantity, with bacilli whose potentiality for mischief cannot be estimated. It does not follow that because a case appears mild at the onset it will remain mild, and that at any time grave symptoms may supervene in an apparently mild attack. In judging of the severity of an attack of diphtheria, two factors have to be taken into consideration—(1) The susceptibility of the patient, and (2) the virulence of the organism. Of these factors in any individual patient we know next to nothing. The personal equation is too often lost sight of. One is often surprised to find symptoms of cardiac failure, nephritis and paralysis occur in cases

^{*} *Quarterly Medical Journal for Yorkshire and the adjoining Counties*, February 1900.

where one would have least expected these complications. The cells of certain individuals are peculiarly susceptible to the diphtheria toxins, and as we cannot gauge the resisting power of any patient beforehand, we are not justified in withholding the antitoxin." Would you not apply these remarks to plague, enhanced threefold in their serious import and gravity, and would you not then realise what measure of success can attend the lot of one whose labours are cast in the field of plague therapy?

Criticisms.—Like every other new method of treatment, LÜERIE's serum has had to undergo criticism. We invite criticism in matters scientific, but at the same time we stipulate that the criticism should be intelligent, that it should be informing, and that it should be honest and straightforward. At the same time, if it does not fall within these requirements, we discard it. I have to say it with great regret that almost all the criticism levelled at the serum treatment lacks one essential element, *viz.*, personal observation and personal interest; and that, instead of inquiring into the subject as a matter of scientific interest, the critics have been led away by a certain amount of prejudice and distrust, engendered, no doubt, by the glowing expectations with which another serum was received in Bombay early in 1897, and its limited results and the failure of sero-therapy in other diseases. But the conditions under which we work our public plague hospitals, the material with which we have to deal, and the complex nature and rapidity of death that characterise plague, forbid any such glowing expectations. We have to be thankful for such small mercies as are vouchsafed to us by any line of therapeutics, and if we succeed in enhancing the recovery rate by 50 per cent. in all cases, as we do with LÜERIE's serum, we should consider our labours amply repaid. Under such circumstances, I trust you will agree with me when I say that if I do not attach any importance to certain criticisms directed without personal experience, and from a safe and respectful distance, I am perfectly justified in adopting the course.

There have been some critics who have reared up a fetish, to which they ask us all to bow down in all humility. Armed with a microscope, a few tubes of agar, a box of paint and a gas jet, with a rabbit or two thrown in, they consider themselves competent to solve all the mysteries of disease in our complex human organism. They look down upon clinical observation, and a clinician is to them a creature to be tolerated as an inevitable but necessary nuisance, and whom they would readily cast aside if they could. A human being is much too large an object for their study, and with a rat or a rabbit, and perhaps occasionally a monkey, they are well content. They are apt to apply bodily and without due reservation the results of their observations on lower animals to man, forgetting, at the same time, the essential differences in the vital processes of the man and the brute. Protests have been frequently raised against this tendency on the part of bacteriologists, by bacteriologists themselves, and by none so emphatically as the members of the Indian Leprosy Commission that included such noted bacteriologists as the late Professor KARTHACK and the late Dr. BRAVEN BAKE, and the late Major BANERJEE, I.M.S. They say:—"We regret that without in the least under-

estimating the importance of bacteriological and animal experiments, the modern advance in these have led observers to take a one-sided view to the disregard of the evidence derived from clinical and epidemiological experience. The bacteriologist, in experimenting upon highly susceptible animals, easily runs the risk of arguing beyond his premises and of drawing conclusions from his experiments, which he applies without sufficient reserve to the natural mode of infection. We believe that it is quite impossible for bacteriology alone, without the aid of clinical and epidemiological observations, to deduce the etiology of an infectious disease." And yet, after all our clinical experience of plague in Bombay during four epidemics, we are calmly told that the clinician is not to be trusted to diagnose plague, and that his opinion and diagnosis do not count for much, so long as the bacteriologist is not at hand with his paraphernalia. I do not wish to be misunderstood. I have the greatest respect for the bacteriologist and his valuable work, so long as he remains within his proper sphere; but the moment he forgets himself, and oversteps functions that do not legally and equitably belong to him, he becomes an hindrance instead of a useful help, which I readily admit he most undoubtedly is, and it is against this tendency of the bacteriologist to trench upon and usurp the rights that justly belong to the clinician that I beg most emphatically to protest on this occasion. I have been led to make these remarks because some persons having no other weapon or argument against the serum treatment have gravely advanced one, *viz.*, that the better results of the serum treatment could be explained away by the fact of cases that were not plague having been taken as such, and that no case should be considered as one of plague unless and until the examination of blood reveals the presence of the bacillus pestis. Now those who advance these arguments forget that if there are any errors of diagnosis they ought to be on both the sides—the serum as well as the control—for it is not human for any clinician to so contrive that all his diagnostic errors should fall under one category and not the other. If there were any errors on the serum side, the controls should have shared equally in the same. They also forget that, time after time, the most exact and painstaking examination of the blood, both by the microscope and by culture, have failed to reveal the presence of the bacillus in the most undoubted cases, and even fatal cases of plague, and that it is only just prior to death that in many cases it may be detected. The Austrian Plague Commission, who made daily exhaustive investigations into this matter, extending seriatim over 150 cases, confirm this. If, then, bacteriology fails to help us at the most critical moment, and the clinician is not to be trusted to make proper diagnosis, to whom should we turn for guidance?

A false analogy has been introduced by some in this controversy. Because in every case of diphtheria it is necessary to verify the diagnosis by bacteriological examination, *ergo*, they argue, the same should be done in plague. They obviously forget that unlike, as in diphtheria, there is no other disease that can be mistaken for plague, just as croup—a comparatively benign

disease,—is often mistaken for diphtheria. In the absence, therefore, of any other disease in our whole nosology that can be mistaken for plague, I fail to see the necessity of imposing bacteriological examination in every case, or distrusting the results in those cases in which it has not been done. No other affection presents the typical cardinal symptoms of plague which are evident, more or less, in every case, and during epidemic times there is no disease of which the diagnosis is so easy. And yet, in spite of this evident fact, it is often regrettable to observe that woeful want of common sense, that fatal hesitancy, and that perverse inability to look things squarely in the face, that characterise the diagnostic efforts of some, who ransack the heavens above and the earth below for some cause or causes, probable and improbable, of the clinical phenomena they see, whilst self-evident facts appeal to them mutely, but in vain, and indicate what course to pursue. To this, and this source alone, I am inclined to attribute the high mortality rate that is so often observed in private practice, especially among the better classes of people. Much valuable time is thus lost, and what timely assistance could have done in the early stages becomes unavailing later on. The essence of plague treatment by serum lies in its immediate, early and free use, and every hour that is wasted in futile diagnostic antic or self-deception adds to the danger of the patient. It is said that whilst 2,000 units prove beneficial in a case of diphtheria on the first day, even 50,000 are powerless on the third or fourth day; and so also in plague. A good dose on the first day, and perhaps a second one on the day following, would, I believe, eventually suffice to arrest the progress of the disease, although it would not be possible to undo the mischief already done, and which no serum is capable of doing.

Then again it has been said that the personal bias of the clinician has much to do with the results. Nothing could be further from the demonstrable facts. However much this aphorism may be applicable to fields of laboratory research and animal experiment, it does not bear upon clinical observation, for there could be no personal bias in clinical medicine, and no observer can convert into plague a case that is not plague, and *vice versa*. The question becomes narrowed down to only a single issue: Were the cases treated with the serum plague or not plague? If the former, then no personal bias could enter into the inquiry: if the latter, then it shows that no clinician, however wide or varied his experience, is trustworthy. No physician is infallible, and I do not claim to be one. This much would I permit myself to say, that the greatest care and circumspection was exercised in eliminating all sources of errors consequent on faulty diagnosis, and all that skill, experience and constant and daily vigilance could do to secure accurate results was done. If after that there were any errors, I may add *humanum est errare*.

And now I shall conclude this paper in the same words with which I closed a recent communication to the *Lancet*. "We have no reason to be dissatisfied with the progress made within two years of its application. Neither the mode of its preparation, nor its application at the

bedside, have yet been finally determined, and it is only by further research, experiment, and prolonged clinical observation that we shall be enabled to place it on a proper basis. So far as we have gone, we have been able to prove that the serum treatment is the only treatment that can in any way reduce the high mortality of plague, and we abide by our experience."

NOTES ON EIGHT CASES OF INFANTILE UTERI IN INDIAN WOMEN.

BY MISS ADA WHITE, L.M.S.,

Medical Officer, Out-door Department for Women and Children's Diseases, Campbell Hospital, Sealdah, Calcutta.

M. C., aged 23, European, came to the out-door dispensary on the 13th May 1900 for the treatment of sterility and scanty menstruation. She was exceedingly stout and well developed.

Menstrual history.—First menstruated at the age of 13; always been scanty, regular, painless, lasting only one day; the discharge was light in color.

On examination.—The breasts were firm and large; the external genitals normal and well developed; hair on the pubes.

Vaginal examination.—The vagina large and roomy; the cervix infantile and rather long, about $\frac{1}{2}$ "; the os pinholed, only admitted a fine probe; fundus felt small, about $\frac{1}{2}$ " in width. The whole length from the fundus to tip of the cervix was $1\frac{1}{4}$ ". The measurement was made with great care and is correct: there was slight anteversion. The ovaries were very tender on pressure, but they could not be felt to be enlarged. She was advised to attend twice a week for some time.

The treatment adopted was gradual dilatation with metal dilators. On the first day dilators 1 to 5 were passed without causing much pain, and only slight bleeding. On the second attendance Nos. 4 to 7 were passed without bleeding. Gradual dilatation was continued till No. 13 was passed. She then began to menstruate; the flow was freer than before and lasted two days. During the period treatment was suspended, and after a week the uterus was found to admit a sound up to $1\frac{1}{2}$ ". The fundus felt heavier. No. 17 was the largest dilator used, and it was introduced twice a week until menses again appeared; the period lasted four days; the discharge was light in color. When again measured, the uterus was found 2" in length. The patient felt much better in every respect and ceased to attend. She came again after six months. The uterus had undergone no contraction; it measured 2"; menses continued free, lasting four days. The patient was disappointed that pregnancy did not occur.

CASE II.—GOLAR, Hindu, aged 16, came for treatment of sterility and amenorrhoea. Had been married, well developed and stout.

Menstrual history.—Could not get the date of first menstruation; always scanty, painless, lasting two days. Amenorrhoea for two years. Had been a widow for two years.

On examination.—The breasts were large and firm, the external genitals well developed.

Vaginal examination.—Vagina narrow, cervix small, os pinholed, only admitted a small probe, uterus $1\frac{1}{2}$ " long.

She was dilated on several occasions, with the result that she got a slight discharge at the first menstrual period. The second period lasted two days. She ceased to attend the dispensary and was lost sight of.

CASE III.—SHORROW, aged 20, came for treatment of sterility and amenorrhoea. Was married, well developed, and stout.

Menstrual history.—Regular, scanty, painful, lasting one day. For the last seven months it had become more scanty.

On examination.—The breasts large and firm, external genitals well developed.

Vaginal examination.—Vagina large, cervix long and infantile, os, pinholed; a fine probe passed in $1\frac{1}{2}$ ".

She was dilated, and a suitable galvanic stem pessary was introduced and kept in for two months, but the menstruation did not improve, nor did the uterus increase in size.

The following cases I saw only once and had no opportunity of treating:—

CASE IV.—BIBIANA, aged 16, came for treatment of sterility. Had been married for two years.

On examination.—Well developed, stout, breasts firm and large; no hair on pubes; external genitals well developed.

Menstrual history.—Regular, scanty, painful, lasting four or five days, but occasionally she gets it twice a month.

Vaginal examination.—Cervix long, os pinholed, probe enters $1\frac{1}{2}$ ".

CASE V.—NASEBAN, aged 20, came for sterility and amenorrhoea. The patient was well developed and stout.

On examination.—Breasts large and firm; hair on the pubes; external genitals well developed.

Vaginal examination.—Vagina large, cervix small, os pinholed, probe enters 1".

CASE VI.—SOMLO, aged 20, came for suspected pregnancy. Stated that she had had an abortion six months ago. She was exceedingly stout and well developed.

On examination.—Breasts large and firm; external genitals well developed; hair on pubes.

Menstrual history.—Regular, painless, scanty; amenorrhoea for a month.

Vaginal examination.—Vagina large, cervix small, os pinholed, probe entered $1\frac{1}{2}$ ".

CASE VII.—HALIMAN, aged 20, complained of amenorrhoea and sterility. Patient was not well developed and of chlorotic appearance.

On examination.—Breasts large and firm, but the external genitals were not developed, and she had the appearance of a girl of 10 years; no hair on the pubes.

Menstrual history.—

Vaginal examination.—Cervix small, os pinholed, probe entered $1\frac{1}{2}$ ", very tender on pressure over both ovaries.

CASE VIII.—R. S., aged 20, widow for 10 years, complained of dysmenorrhoea.

On examination.—Well developed, very stout. Breasts firm and large, external genitals well developed; hair on pubes.

Menstrual history.—Regular, very painful, lasting four or five days.

Vaginal examination.—The hymen not completely destroyed, exceedingly sensitive in fact, slight vaginismus, cervix small, probe enters $1\frac{1}{2}$ ", very tender on pressure over right ovary, but neither ovary distinctly felt.

In the works of Gynaecology which I have been able to consult, the subject of "Infantile Uterus" is dismissed with a few words, except in the *Cyclopaedia Obstetrica* and *Gynaecology*, in volume XI of which Professor P. MÜLLER gives a detailed description of the condition as one of the causes of sterility.

He states that it is rare, and considers that it is not always congenital, but may be due to injurious causes acting after birth, during childhood, and even at puberty. Putting aside cases in which the rudimentary condition of the uterus was accompanied by general maldevelopment as in dwarfs and cretins, he instances a case where the development of the uterus was prevented by inflammatory adhesions; other causes assigned by him are scrofula, rickets, epilepsy, hysteria, and especially chlorosis.

As to local causes, absence or rudimentary state of the ovaries is probably important. All cases in which the uterus measures less than 2 inches MÜLLER describes as "hypoplasia."

Since April 1899, 450 women have attended my outdoor dispensary for the treatment of some gynaecological ailment, and among them I found seven cases of hypoplasia uteri. (One case occurred in private practice.)

These figures show that the condition is more common in this country than it appears, from gynaecological writers, to be in Europe. Dr. KEDAR NATH DASS has told me that he has met with the condition frequently. It will be observed that in the above cases seven were well developed, healthy, robust women, who came principally for treatment of sterility; one had a chlorotic appearance.

As to the social condition of these women, three were very well off, one was a Hindu, and the others had the appearance of being in good circumstances.

The causation of the want of development of the uterus in these women is not apparent.

There was no sign of inflammation, recent or old, about the uterus, and there was no history of pelvic disease. In all menstruation had occurred; in most of them it was scanty and regular.

The normal feminine appearance of the women, and the fact that menstruation had occurred, pointed to the existence of ovaries.

All the women had been married; one was a widow for ten years; menstruation had always continued and was free. Another was a widow for two years, since when she had not menstruated. The other six were married and living with their husbands, thus showing that the condition was uninfluenced by the stimulus of married life.

The sexual impulse was weak in Case 1, but developed with the growth of the uterus. It was difficult to get any correct history from the other cases.

A MIRROR OF PRACTICE.

A CASE OF HODGKIN'S DISEASE.

UNDER THE CARE OF MAJOR LYONS, M.D., I. M. S.

(Reported by I. H. STEDH.)

Why admitted.—E. S., a Jew, aged 15, was admitted in the Senior Physician's ward of the J. J. Hospital for headache, double vision and enlargement of the cervical glands.

Personal history.—The patient enjoyed very good health up to the time of the present complaint, and never suffered from any disease before this.

History of life.—The patient is not given to any vice, both smoking and alcohol, and lives on a mixed diet.

Origin, duration and progress of the present complaint.

—The patient's present complaint is of a month's duration, and began with headache. As time elapsed the patient's trouble grew worse, and subsequently he suffered from double vision by his right eye when the eye-ball was fixed at the outer canthus; together with these symptoms he noticed the enlargement of the glands in the neck, particularly those of the left side. He had slight fever, his bowels did not move regularly, and he suffered from loss of appetite. His temperature was 100.2°F., pulse 80, respiration 20, at the time of admission.

Family history.—The boy has his parents and a brother, all of whom are in a good state of health.

Cutaneous system.—Normal.

Respiratory system.—The sternum is very prominent. There is only increase of vocal resonance at the upper part of the left lung, otherwise the lungs show no disease.

Circulatory system.—Besides there being marked anaemia and the veins of the scalp standing out prominently, this system was found to be quite healthy.

Digestive System.—All his teeth are present and in good condition; the tongue is coated with a white fur. Both the tonsils are enlarged and congested, particularly the left, and so narrows the fauces. The uvula is slightly congested and thickened. There is no pharyngitis, and the patient complains of little pain during the act of deglutition of solid food. He complains of loss of appetite and indigestion; there is no nausea or vomiting; the bowels do not work well. Spleen is enlarged about 4 inches anteriorly of the mid-axillary line; downwards and forwards for about 3 inches below the costal arch; he complains of pain and tenderness in that region. Liver—in the nipple line the liver dulness begins at the fourth rib, in the mid-axillary line at the fifth rib. The lower border of the liver is also enlarged by $\frac{1}{2}$ of an inch beyond the normal limits.

Glandular system.—The patient has general glandular enlargement, more particularly those in front and behind the sternomastoid, those on the left side being larger. The glands feel soft and many tend to run into each other. The submaxillary and sublingual glands also feel large, especially those of the left side. The occipital glands are also enlarged. The axillary glands are enlarged as well, having become so some time after those of the neck. They are soft and tender. The femoral glands are as large as a pigeon's egg, and feel soft and are tender on pressure, the left being especially more than the right. None of these glands are suppurating, and those of the neck are not at all painful and tender. Both the tonsils are enlarged.

Reproductive system.—The penis is circumcised as customary. The left epididymus feels large, and gives the scrotum an appearance of its containing three testes. The patient states this condition to have existed for a very long time before the present complaint came on.

Nervous system.—With the exception of diplopia there is nothing abnormal. Patient sleeps well.

Locomotor system.—Normal.

Urinary system.—Nothing abnormal.

Provisional diagnosis.—From these signs and symptoms, namely, occasional irregular fever with chill, enlarged spleen, liver and glands, especially those of neck tending to coalesce prominent veins of scalp, diplopia, marked anaemia, one of the following diseases could be presumed:—

- (1) Malaria.
- (2) Scrofula or tubercular glands of neck.
- (3) HODGKIN'S disease.

These point in favour of malaria, viz., enlarged spleen and liver and fever, but the other enlarged glands, diplopia, prominent veins, marked anaemia, irregular temperature and no effect of quinine, are against this; hence we may safely exclude malaria. Scrofula though suggested by the enlarged glands in the neck, still it is contraindicated by the following points: viz., irregular temperature and other glands being enlarged besides those in the neck, and they are not suppurating. Moreover in tubercular glands of the neck, the glands of one side only are first affected, and particularly the submaxillary, in these cases. There has been simultaneous enlargement of all the glands on both sides, hence scrofula may be taken out of the list.

Having excluded malaria and scrofula, HODGKIN'S is the only disease that seems to account for all the symptoms, viz., enlarged glands, which are painful and tend to coalesce as seen on the neck. Successive enlargement of the glands of the neck, axilla and groin, and prominence of the veins of the scalp due to the pressure on the internal jugular; marked anaemia with enlarged soft spleen; diplopia can only be explained by the enlarged glands pressing on the sympathetic.

Condition of patient during his stay in the hospital.—The patient stayed from the 26th October to 23rd December 1900. Progress after 5th November 1900 in spite of treatment. The general condition of health is very poor. He is markedly anaemic, and the body has suffered greatly from nutrition. The patient is very weak. He has lost in weight and his expression is anxious; there was sloughing of the left tonsil; the sloughs were removed, and strong citric acid was applied to the part, the patient being under obloquism; his condition did not seem to have improved at all. His relations seeing this, requested his discharge, which was granted.

Treatment.—The patient was treated with arsenic, quinine and caline internally, and iodine and mercurial ointment externally, but these had no effect at all upon him.

"KERNIG'S SIGN" ASSOCIATED WITH A REMARKABLE AND UNUSUAL SYMPTOM.

By JOSHUA PIM, F.R.C.S.I.,

Medical Officer to the Rathdown Union Infirmary.

M. S., aged 19, was sent to the hospital on November 22nd, 1900, as a case of enteric fever.

History.—She last felt perfectly well on November 4th, 1900. On the following day she became suddenly ill, suffering from headache, pain in the back of the neck,

and sleeplessness, from which symptoms she continued to suffer until November 10th. During this period, though up and about, she was unable to do anything. From this date until her admission to hospital on the 22nd she had been confined to bed suffering from the same symptoms. On admission on November 22nd she complained of pain in the back of her head and neck, sleeplessness, great thirst, and indistinct vision, especially in the left eye. Her temperature was 102.2°, her pulse 90, and her respirations 16. The face was flushed, the tongue furred, and she slept very little, but was quiet.

I saw her for the first time on November 23rd, when her condition was as follows:—

Lateral decubitus in state of flexion, slight divergent strabismus. Pupils dilated, the left the more so (defective vision of left eye, could not count fingers accurately). Slight erythematous patch over right eye: skin dry. Breathing quiet, abdominal respiration not noticeable: abdomen full. The abdomen showed no tenderness, gurgling, or tumour. The spleen was not palpable. The liver, heart, and lungs were normal. Her temperature in the morning was 101.6°F., and in the evening 102.6°. The urine did not contain albumen; its specific gravity was 1010. The bowels were constipated.

KERNIG'S sign was present, and bilaterally equal. Its production caused pain in the back of the neck. The knee reflexes were absent. Sensation was possibly slightly diminished, but not increased. Patient could converse rationally, and complained of constant pain in the back of the neck radiating to the shoulders, and of some headache on top of head. She had difficulty in seeing with the left eye, but no difficulty in articulation or deglutition. No tumour or glandular enlargement was discoverable in any region of the neck; the muscles of the neck were slightly rigid, and the head was more or less inclined to be fixed, but not markedly so.

November 24th.—Patient was delirious last night, still complained of pain in back of neck in the morning. She was still very restless, and was wildly delirious from 12 to 5 A. M.

On November 25th the temperature was 101.4°, the pulse 94, the respirations 16. She was very restless, muttering constantly to herself. At 5 P. M. she complained of great pain in top of her head, her speech was confused, and she seemed to have lost the sense of taste. Her temperature at 6 P. M. was 103.4°. About 12 P. M. she had difficulty in swallowing for the first time. At 3 A. M. the nurse, who was standing at the fire at the time, says she heard a noise as of something bursting, and on going to the patient found a profuse discharge of greenish fluid pus tinged with blood gushing from both nostrils, but not from the mouth; this continued for two hours, until 5 A. M., when the patient died comatose.

The points of interest in the case were, first, that "KERNIG'S sign" was well marked. The patient, when lying down, could freely extend the legs; but when sitting up at even less than a right angle the knees flexed at once and could not be extended. Secondly, the most remarkable symptom or manner by which the case terminated, namely, the flow of pus from both nostrils, so copious in amount and lasting for two hours. The fact of pus flowing from both nostrils after a noise as of something giving way, as described by the nurse, and the short duration of the difficulty of deglutition, rather suggests the rapid potting and discharge of an abscess at the back of the pharynx; but it is difficult to explain why no pus came from the mouth. Unfortunately it was impossible to obtain permission to make a post-mortem examination. I looked on and treated the case as one of cerebrospinal meningitis, but was quite unprepared for such a rapid and remarkable termination.

Indian Medical Record.

3rd April 1901.

SYPHILIS AND LIFE ASSURANCE.

WE call the following notes from an excellent article in the *British Medical Journal*:—The influence of syphilis on the duration of life has been much discussed, but reliable statistics on the point are few. In English life offices it has generally been considered unnecessary, in otherwise satisfactory cases, to make any extra charge for a distinct history of primary and secondary syphilis without special complications. Professor J. W. RUNEBERG, of Helsingfors, has taken a somewhat different view of the subject, and in his address to the third Northern Life Assurance Congress has given an account of his interesting researches into the part played by syphilis in the mortality of persons assured by the Kaleva Company from its foundation in 1875 to the year 1897 inclusive.

During this period the number of deaths was 734. RUNEBERG gives a list of 84 cases (11.4 per cent. of the total) in which death may be regarded as to some extent the result of a previous syphilitic infection. The assigned causes of death in these 84 cases are as follows: Cardiac disease, 31 (including 24 cases of sudden death from "*Hertschlag*"); general paralysis, 22; other affections of the brain and spinal cord, 21 (including 14 cases of cerebral hæmorrhage or cerebral softening); chronic nephritis, 3; aortic aneurism, 2; arterio-sclerosis, 2; "bone erosion," 1; unilateral pulmonary cirrhosis, 1; uncertain tumour of the neck, 1. RUNEBERG directs especial attention to the relative frequency of fatal disease of the heart and nervous system amongst these cases. In regard to heart disease, the early recognition of a possible syphilitic factor in its causation is of the greatest importance for treatment. Amongst the 22 cases of general paralysis, a history of syphilis was given in 11 at the time of life assurance; in 5 others medical evidence of syphilis was obtained (in at least one of these the syphilitic infection took place after assurance), in 3 others a history of supposed soft chancre was given; RUNEBERG therefore felt justified in including all the cases, though in the remaining 3 he could obtain no proper evidence of syphilitic infection or of chancre.

In some cases of his series RUNEBERG allows that any connection between the actual cause of death and syphilis might be called in question. Thus amongst the cases in which a history of supposed soft chancre only could be obtained are the following: A death from aortic aneurism at the age of 37, fatal apoplexy at the age of 40, a death from tabes dorsalis and cardiac valvular disease at the age of 30; deaths from "heart-stroke" at the ages of 35 and 50. Of the total 84 deaths, 5 occurred between the ages of 21 and 30, 33 between 31 and 40, 29 between 41 and 50, 16 between 51 and 60, 1 between 61 and 70. The mean age at death was 45.4. The mean interval between the supposed syphilitic infection and

death was 33 years. The mean interval between life assurance and death was 8.1 years.

RUNEBERG thinks that in reality he has underestimated the number of cases in which death was more or less consequent on previous syphilitic infection; and as a basis for this supposition he gives a table of 47 cases in which there was no history of syphilis, but in which death occurred under the age of 50 from "heart-stroke," cerebral hæmorrhage, or cerebral softening. He thinks about 75 per cent. of these cases of apoplexy and about 50 per cent. of the "heart-stroke" cases are probably in reality due to syphilitic diseases of blood vessels, and if his view be accepted, the deaths more or less brought about by syphilitic infection amount to 15 per cent. of the total instead of only to 11.4 per cent., as deduced from the first list. This would place syphilis amongst the causes of death next to tuberculosis in frequency and above pneumonia, since during the same period 21.3 per cent. of the deaths were assigned to tuberculous affections and 10 per cent. to pneumonia. In this connection, however, it must be remembered that the assurance institution in question was only started in 1875. BJORKSTROM, the medical director of the company, found that of those insured during the twenty years up to 1895, 12.6 per cent. of those who gave a history of syphilis died, whilst the mortality was only 6.1 per cent. amongst those who said that they had not been infected.

RUNEBERG recommends that no life should be accepted within two or three years after syphilitic infection on account of the special liability to cerebral disease during the first years. Lives should be rejected when there has been any symptom of syphilitic disease of the blood-vessels, even though merely temporary, whether of the nervous system or of the heart. In ordinary cases, however, with a mere history of syphilis, insurance should not be refused, though an extra rating is required, the amount of the extra depending on the length of time which has elapsed since infection, the thoroughness of the treatment, and the intelligence of the applicant, and his ability to obtain prompt medical aid should any symptoms occur.

DIAGNOSIS AND TREATMENT OF INTERNAL PELVIC HÆMORRHAGE.

DR. EDWARD E. MONTGOMERY, M.D., Professor of Gynecology, Jefferson Medical College, and Gynecologist to Jefferson and St. Joseph's Hospitals, discusses in the columns of the *International Medical Magazine* the Diagnosis and Treatment of Internal Pelvic Hæmorrhage. We reproduce the essential observations. Internal hæmorrhage might be produced by engorgement of the pelvic viscera resulting in ovarian apoplexy or ovarian hæmatoma or tubal hæmorrhage and rupture of varicose veins, causing an internal hæmorrhage or hæmatocoele, either free or a circumscribed collection beneath the peritoneum in the cellular tissue. The term hæmatocoele covered both these conditions, as the internal hæmorrhage, if the patient survived, soon produced sufficient irritation of the peritoneum to result in its being encysted and confined within the most dependent portion of the peritoneal cavity. The most frequent cause of internal hæmorrhage from the genital tract was tubal gestation. This might result in the escape of the foetal sac and the discharge of blood into the peritoneal cavity through the abdominal end of the tube, known as tubal abortion, or the sac at any time between the third and twelfth week might rupture, permitting its partial or complete escape into the peritoneal cavity, and the discharge of a large quantity of blood, which might lead to death. But the rupture

might fortunately take place through that portion of the tube uncovered by peritoneum and into the folds of the broad ligament, when the hæmorrhage was circumscribed and the clot formed arrested further hæmorrhage. The pressure, however, might be so great as to lead to a secondary rupture and the escape of the contents into the peritoneal cavity, when bleeding might continue and death occur. There may be little or no premonitory symptoms or warning. Blood in the peritoneal cavity is not recognizable by bimanual palpation, except after it had become clotted and encysted. When this occurred, the great danger had passed. A case of this kind required most careful and judicious management. The faintness and debility attendant were nature's method for arresting the hæmorrhage. Until measures, therefore, could be taken to secure the bleeding vessel, the patient should be kept perfectly quiet, should not be permitted to move a muscle, should have an ice bag over the abdomen, and ice suppositories introduced into the rectum. The pillow should be removed from beneath the head. If the patient had been greatly depressed and an operation was decided upon, as soon after as possible the patient should be given hypodermic injections of atropine and intravenous injections of salt solution, which might be carried on while the abdomen was being opened. The bleeding vessel secured, the abdominal cavity was quickly irrigated, the clotted portions of the blood removed out, not being particularly careful to remove all the fluid, whether blood or salt solution. Saline irrigation used hot was almost as efficient as intravenous injection, and with a large amount in the abdominal cavity, the patient would be able to absorb or take up the portion of blood that might remain. The operation consequently should be expeditious, rapidly securing the vessel, not thoroughly cleansing the peritoneal cavity, dipping out the clotted blood with the hand, irrigation with salt solution, wound closed and dressed, patient placed in bed with limbs bandaged and the pelvis elevated. In patients where the blood had escaped for some time, the condition became chronic. Operation was not always necessary, as under judicious management the blood would be absorbed and the whole collection disappear. The blood collection underwent a process of being encysted, then organized, and finally it was removed. This process, however, required a considerable time. It might be interrupted by various accidents, increasing the possibility of infection of the collection, so that in such cases, while operation was unnecessary, it was still advisable for the reason that it removed the possibility of accidents, facilitated the removal of the collection, and freed the patient from the thickening and exudations with more or less of fixation of the organs. Where the blood was encysted in DOUGLAS' pouch, it was preferable to open through the post-cervical cul-de-sac, making a free incision, evacuating the contents of the pelvis, irrigating the cavity, scraping out with the finger the adherent clots, and packing with iodoform gauze, thus making sure of retaining a good, free opening. This permitted the evacuation of the collection without the more serious abdominal incision, and even permitted the turning down, ligation and removal of the tube or foetal sac. This procedure was particularly valuable in cases of circumscribed hæmatocoele, where the collection had been poured out into the broad ligament. Here it might be reached by a vaginal incision without opening into the peritoneal cavity, and with much less danger and discomfort to the patient than would result from an abdominal incision. This plan was, however, only applicable to those cases in which the collection was old, having given time for hæmorrhage to be arrested and the bleeding vessel occluded. In recent hæmorrhage, where there was reason to believe that the vessel was still bleeding or likely to bleed, the abdominal incision should be made to permit the inspection of the cavity and the certain control of the bleeding vessel.

INDIANS IN THE INDIAN MEDICAL SERVICE.

In *The Lancet* of the 16th March, there occurs the following passage in an I. M. S. man's letter to that journal :—

"Agitation is repeatedly being made to open the portals of the Indian Medical Service to native men qualified with Indian degrees. What the leaders of this movement want is a competitive examination for the Indian Medical Service to be held in Calcutta and open to holders of Indian degrees. In consequence of the shorthandedness of the service, the Government have recently offered twenty temporary vacancies to men who hold British qualifications, but it is very doubtful whether any candidates will come forward on the terms offered. This offer is not at all what the memorialists want, and it is, in my opinion, absurd to compare an Indian degree and education with those obtained in the British Islands. The feeling in the service is that there are too many natives in it already, so that any further concession in this direction would be undoubtedly unpopular."

Of course no I. M. S. man will admit that Indians are fit to enter the I. M. S. This service, according to the average I. M. S. man, should be a preserve for the Edinburgh D.Q. or the London L. S. A.; but no M. B. or M. D. of India should dare to presume to knock at its portals. As a matter of fact, to start with, the Universities of India demand an educational test that is more than twice as difficult as the "matriculation" for admission into British medical colleges, and when it comes to a question of the difference in intrinsic professional merit between an Indian degree and a British Corporation diploma (which is the passport into the I. M. S. for the vast majority of its members), there is no shadow of a comparison. We say, give the Indian graduate a chance, and he will prove a very favorable and creditable competitor with his British professional brother.

Again, why should not Indians have a fair and equal chance with all comers for employment in their own country? Surely prejudice and an unrighteous selfishness to keep every avenue of labor in India as a close preserve for the imported Britisher, is a spirit that is directly in violation of the great Victorian Proclamation of 1858. That Magna Charta for India cannot be trampled under foot as British officials in India so much desire that it should. If the Government of Great Britain earnestly and honestly desires to fulfil its obligations to the people of India, the I. M. S. must be thrown open to simultaneous examinations in London and Calcutta. Indians cannot compete equally with Britishers in London. If it is fair to say that the London door to competition is as freely open to the native of Britain as it is to the native of India, will the Government have the goodness to hold the competitive examination for the I. M. S. year by year alternately in Calcutta and London? We wonder then if the HARVEYS and KENNETH McLEODS of the I. M. S. would as readily cry out that it was quite as fair to the Londoner to expect him to go to Calcutta for an examination, as they now pharisaically say when the Indian is compelled to go to London to find a means of earning a decent livelihood. To be fair and right, the India Office must either hold simultaneous competitive examinations for the I. M. S. in London and Calcutta, or it must hold such examinations alternately year by year in London and in Calcutta.

COMMENTS AND NEWS.

THE NERVES AS AFFECTED BY DIET.

THE Medical Brief says:—We eat to make us strong, but to accomplish this, we must eat the right kind of food in just sufficient quantities to satisfy the actual needs of the body.

Strength, or energy, is measured and apportioned by the nervous system. Unless the nerve centres are in health, they cannot do this. The digestion and storing up of surplus nutriment is a tremendous drain upon the nervous system, keeping it so weak and toneless, it is unable to appropriate the needed nourishment to make good its own losses.

The nervous system of a glutton is like the overworked mother of a large family. It is so exhausted by the incessant demands of the digestive organs, it has no time to attend to its own needs.

The nervous system controls the secretions of digestive juices, the peristaltic movement of the stomach and bowels, the activity of the intestinal absorbents, the phenomena of assimilation and excretion.

The secretory glands, the muscular coats of the digestive organs, the vessels which carry the product of digestion into the circulatory system, all use up nervous energy, so that the plump, sleek person, whom we speak of as well nourished, may have no strength at all. He has a big, unwieldy, shapeless frame, over which he has little control and of which he can make little use. His nervous force is entirely consumed in digesting food, storing up fat, and carrying the load around. It takes all his energy to live without trying to do anything.

Appetite and digestion have been cultivated in his stock at the expense of other faculties and activities, perhaps for generations. The circulation of these persons increases in area. New veins, lymphatics and arterial twigs are thrown out to keep alive the unnecessary bulk of stored-up fat. This increases the work of the heart, which is proportionately enfeebled, and the muscles are flabby from the presence of fluid in excess.

After this condition of affairs is firmly established through the cultivation of the digestive apparatus at the expense of the nervous system, it is a difficult matter to get back the hardihood and stamina, the normal outline of figure, the firm organization of all the parts, the tense muscle and mental acuteness, enjoyed by the man who has always been frugal in his diet.

It is true there are people who eat ravenously, and yet remain thin and feeble. Their case is even worse. The balance of nutrition is entirely destroyed. Assimilation scarcely takes place at all. Irritation and disorganization of the nerve centres has taken the place of simple weakness. They are tearing down the body substance, and death as a result is only a question of time.

If the effect of diet on the nervous system were better understood, we should not see people habitually, sometimes conscientiously, stuffing themselves with unnecessary food, which it will require all the little energy they have left to imperfectly digest, in order to "make themselves stronger."

A LIBEL ON EURASIAN CHEMISTS.

An individual styling himself "GEORGE OSOIL," writes as follows to the *Chemist and Druggist* of London :—

"In India the chemist's shop plays, if anything, a more important part than in Great Britain and other civilized countries; for the exile appears to be cursed with more than

his fair share of the ills to which the flesh is heir. In addition to the ordinary ills of everyday life, fever and ague are common occurrences, whilst cholera and plague render themselves obnoxiously *en évidence*. The chemist's wares are thus in constant demand, and, in addition to the recognised pharmaceutical establishments, the emporiums devoted to the sale of general merchandise stock chemical concoctions and remedies, reliable and otherwise, of all descriptions. In addition to such establishments as Messrs. SCOTT, THOMPSON & Co., SMITH, STANISTREET & Co., and BATHGATE & Co. (of Calcutta), KEMP, PHILLIPS & Co., TREACHER & Co., and BERTIE SMITH & Co. (of Bombay), MURRAY & Co., and PEAKE, ALLEN & Co. (of Lucknow), HOSKINS & Co., and SIMMONDS & Co. (of Meerut), PEARSON & Co. (of Secunderabad), ABID & Co. (Hyderabad), and WILSON & Co. (of Rawalpindi), Kurahee, Madras, Lahore, Benares, Simla, Mussoorie, Naini Tal, and Poonah, are also provided with pharmaceutical establishments, essentially English. There are also innumerable Eurasian jacks-of-all trades, who entitle themselves chemists; whilst there exist a number of Parsee and native shops in which pharmaceutical goods are stocked. At the Anglo-Indian establishments—to be found in Calcutta and elsewhere—the contents of the bottles and drawers are much the same as in any civilised country, and the manager and assistants handling the various drugs and powders are generally qualified men. But in the Eurasian establishments so happy a state of things does not prevail. In the first place, the Eurasian is wanting in intelligence—and this description lets him down lightly. In the second place, he is careless and "slack" to the seventh place of decimals, although there are exceptions who exist but to prove the rule. The Eurasian chemist does not aim at making a fortune, and his charges are, therefore, strictly moderate."

Attached to this libellous statement by Mr. GEORGE CREIL is a caricature of "the Eurasian Chemist." Locally trained chemists of British descent are to be found in every respectable drug store throughout India. Many of them receive better wages than men imported from England, and the majority of them are respectable, well-educated, hard-working honest men. To subject them to ridicule and obloquy in a British journal, is to be guilty of meanness and falsehood, and we ascribe both these qualities to Mr. GEORGE CREIL, while we call upon our contemporary to retract his lying and malicious correspondent's libellous statements.

A DARING DECEPTION.

THE *Medical Times and Hospital Gazette* says:—The pressing importance for a speedy change in the laws relating to death certification has recently been practically illustrated in the police courts. A singularly daring individual who was, or had been, a medical student, called in a medical practitioner and contrived to delude him into the belief that his patient was suffering from acute nephritis. He appears to have simulated the symptoms of that malady with singular ingenuity, showing his sympathising attendant swollen ankles and doctoring his urine with increasing amounts of albumen. Finally, the doctor saw his patient in bed, and, to all appearances, moribund. He was not therefore surprised when a man who, in the event, proved to have been the patient himself—minus his moustache—called upon him shortly afterwards to announce his patient's death—"in a fit," and describing himself as the brother of the dead man. He thus obtained a death certificate from the unsuspecting doctor setting forth that the deceased came to

his end by uræmic convulsions, due to acute nephritis. But the anxiety of the deceased to get his body removed resulted in suspicion and investigation, and the corpse was discovered to be a dummy made up with pillows, a pair of boots, one or two other minor articles, and a poker. He is now upon his trial, having been prevented, apparently from obtaining some concrete advantage from his premature decease. Such a case, however, clearly emphasises the urgent necessity of an immediate change in the laws relating to death certification. Either the body should be viewed by the usual medical attendant before he fills in the certificate, or a Government medical examiner, like the officer appointed for that purpose in France, should be called in independently to certify that death has actually taken place. At present the law on the subject is most unsatisfactory, not the least injustice of the system being that medical men are expected to take the whole work and responsibility of death certification without any fee or remuneration.

RESOLUTIONS CONDEMNING THE DIVISION OF FEES.

We quote the following from the *Medical News*:—The Committee to which were referred the resolutions introduced at a meeting of the Chicago Medical Society on January 23rd, made the following report at a meeting held on January 30th: *Resolved*—That the offering or giving of a commission, or percentage of a fee, by the consulting physician or operating surgeon, or the asking or receiving of such a fee or commission in any guise whatsoever by the physician referring the case, is dishonest, disreputable and unethical, unless such an arrangement be made with the full knowledge of the patient. *Resolved*—Further, That a violation of this resolution shall subject the offender to expulsion from the Society. These resolutions were unanimously adopted by a rising vote. Dr. ARCHIBALD CHURCH introduced the following resolution: That it be the sense of the Society, that the fees ordinarily received by the attending physician in connection with cases requiring surgical operations in common practice are not adequate, and that the physician should have the support of the Society to increase his charges under such circumstances. This resolution was likewise adopted.

MEDICAL EXAMINATION BEFORE MARRIAGE.

THE *Medical News* says:—A marriage license bill was introduced in the Wisconsin Senate, January 16th, which promises to eclipse the marriage law of 1899. This bill provides that no persons can marry who are suffering from true or hereditary insanity, insanity caused by vicious habits, or the use of drugs, consumption and various other diseases which are named in the bill. Every person who wishes to marry is required to go before an examining board of three surgeons, to be appointed in each county of the State by the county Judge, and must pass an examination before a marriage license can be issued to them. In addition all male candidates for matrimony who are under twenty-five years of age, and all female candidates under eighteen years, must produce a written consent of their parents before they can secure a license. Any clergyman, Justice of the Peace or other person who can perform marriages and who marries any couples who do not produce a certificate from the examining physicians of his county is to be fined not more than \$500, or confined in prison not more than one year.

A LADY DOCTOR SUES FOR FEES.

THE *New York Medical Journal* says:—To a Parisian lady doctor of medicine must be credited the honor of a brave and, strange to say, successful legal vindication of

a physician's rights. Some little time back she brought suit in the Paris courts against the father of a child upon whom she had operated for cervical abscess to collect the amount of her fees, some 400 francs in all. The parent entered as a defence that the operation had been unskillfully performed and, so far from benefiting the patient, had done positive harm, and offered in support of this contention a certificate from a dentist. The court called upon Professor BROUARDIN, the eminent medical jurist, for his opinion, which was eminently satisfactory to the lady; whereupon she boldly entered further action for damages, on the ground that the defendant had supported his opposition to her claim by misstatements prejudicial to her professional reputation. The court heard the arguments in detail, and decided for the plaintiff on both counts, awarding her damages of fifty francs in addition to the amount of her bill. We congratulate both the lady and the court on this eminently sensible judgment.

THE IMPERIAL ANGLO-INDIAN ASSOCIATION AND ITS NEW PRESIDENT.

THE leading Indian paper of Calcutta, *The Bengalee*, says:—"The Imperial Anglo-Indian Association held its annual meeting on Thursday last, the 21st March 1901. We are glad to find that Dr. JAMES R. WALLACE has been elected President of the Association. No better selection could have been made for this office. Dr. WALLACE has done more for his community than any living man that we can think of.

"Our political platform is somewhat different from that of the Anglo-Indian Association, but we have not the smallest objection to the Association carrying out its political programme with all the zeal and earnestness of which the Association is capable. We believe the time will come when Anglo-Indians and Indians will worship in the same temple, and when they will know no higher pleasure or duty than to work conjointly for the common interests of their common country. In the meantime let us live in peace and amity, in the interchange of the amenities of civilised life."

We cordially second these sentiments. Both communities will be strengthened by a union of sympathy and action in many lines in which their policy ought to make for a distinct bond of unity. Once this is done, no power on earth will stay the onward progress of India towards liberty, fraternity and equality.

PREVALENCE OF MOSQUITOES AND MALARIA IN HONG-KONG.

THE *New York Medical Record* says:—"J. C. THOMSON has found two distinct species of anopheles abundant in the colonies, and at least eight distinct species of culex. The extirpation of malaria in the western part of the city must consist in the levelling and covering in of all the water-courses. The connection of malaria with disturbance of soil, an important point in Hong-Kong, is by no means clear as yet. GRASSI states that it depends on the creation during digging operations of puddles of water in which anopheles breed, but this does not hold for Hong-Kong, where the whole of the broken surface may show no single puddle, the sun drying the superficial layers as they are turned up, and yet where earth-cutting is invariably attended by an outbreak of fever. Culex is not known to act as a host to the malaria parasite, but it certainly does to the filaria, which causes the great group of elephantoid diseases. The author has found the larvae of culex in process of development in abundance in or about every house without an exception in which he has looked for them—in tea-pots, flower stands, fire buckets, hand basins, etc.

NERVOUS HYPERTHERMIA FOLLOWING PARTURITION.

HOWARD DIXON emphasises these interesting features in a case of this kind: (1) The force used to deliver the child—considerable traction being necessary—without the help of anaesthesia, and with little or no immediate shock to the patient. (2) The prolonged period which elapsed between labor and the advent of pyrexia, elevation of temperature being first noticed on the sixth day after labor. (3) The complete absence of any symptoms pointing to septicity, the lochia continuing normal and the abdomen free from tenderness throughout. (4) The long period (ten days) during which the fever continued, producing very little ill-effect on the general condition of the patient. (5) The occurrence of a rigor after each of the uterine douches, and at no other time. The erratic temperature was considered to be of purely nervous origin.

AFFECTIONS NOTED IN SMOKERS.

DR. RAMON GARCIA, M.D., of Havana, says:—"In Cuba, where smoking was carried to such an excess, he said, one had many opportunities for studying the symptoms of tobacco-poisoning. He first described the effects of tobacco smoke on the mucous membranes of the mouth, pharynx, and larynx, and spoke of the nicotine and other products of combustion of tobacco. He compared alcoholic inebriety with tobacco-poisoning, and explained that the latter depended not only upon the quantity and quality of the tobacco smoke, but also upon the peculiar susceptibility of the smoker. Tobacco intoxication might be either acute or chronic, and its effects might be divided into two great groups, according as the nervous or the circulatory system was chiefly influenced. The main symptoms on the part of the nervous system were vertigo, tremor, insomnia, amnesia, and amblyopia. Those on the part of the circulatory system were cardiac palpitation and tachycardia and arterio-sclerosis.

ADVERTISING BY DENTISTS.

We quote the following from a London contemporary:—"It will be in the recollection of our readers that the General Medical Council, at its spring session last year, erased the names of two dentists from the register because they had advertised in such a way as to amount to, in the Council's opinion, infamous conduct in a professional respect. At the same time the Council adopted the following resolution:—

That the attention of the Council having been called to the practice of advertising by certain dentists, it is hereby resolved: "That the issue of advertisements of an objectionable character, and especially of such as contain either claims of superiority over other practitioners, or depreciation of them, may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect."

MEDICAL J. P'S. FOR BOMBAY.

A LIST of the gentlemen appointed by His Excellency the Governor in Council to be Justices of the Peace within the limits of the town of Bombay was published in Thursday's *Government Gazette* in supersession of all previous orders for the appointment of Justices. The following are the names of the new Justices of the Peace:—

Colonel S. M. Blennerhassett, C.M.G., R.A.M.C.
Major W. H. Burke, M.B., I. M.S.
Dr. Diego Manuel D'Silva, L.M. and S.
Major W. E. Jennings, M.B., I. M.S.
Dr. Popat Parbhuram, L.M. and S.

DIPLOMA-MILL GRADUATES IN MICHIGAN.

The *Journal of the American Medical Association* says:—The Armstrong diploma mill products located in Michigan are making a fight for their professional existence, and are unscrupulously using all means to that end. As an example of their zeal, a circular explaining itself as "an appeal to the medical profession of the State" has been sent out, seeking signers for a petition to the governor and legislature, asking that the law be amended in their behalf. One argument used by them is that the present law will be declared unconstitutional by the U. S. Supreme Court. "Having a knowledge of all this," says their spokesman, "we do not think it wise or prudent to open up Michigan once more as a dumping ground for quacks." Whatever the judicial opinion may be on technical points of the law, the anxiety of these fellows, whose medical qualifications were derived from the convicted fraud ARMSTRONG and his quack manufactories to keep Michigan from being a "dumping ground" is sufficiently peculiar and conspicuous to be noteworthy.

SALE OF BOGUS MEDICAL DEGREES.

The *Statesman* says:—In regard to the recent sale of bogus medical degrees in Calcutta and other parts of India, it seems that legal proceedings taken in connection with this traffic in Chicago have resulted in a certain person named ARMSTRONG being sentenced to twelve months' imprisonment and a fine of five hundred dollars for fraud. It transpired in evidence that the defendant and another conducted what was known as the Metropolitan Medical College in Chicago. This "College" made pretensions by advertisement of giving a good medical education, but it possessed no sort of qualified professors, accessories or appliances for such a course of instruction, and existed solely for the sale of bogus degrees.

SHORT ITEMS AND PERSONALITIES.

It is with deep regret that we have to announce that Surgeon-General Albert Augustus Gore, C.B., M.D., late A.M.S., died on March 10th at his residence, Dodington Lodge, Whitchurch, Shropshire, at the age of 62. He was born at Limerick, and educated at various medical schools in London, Paris and Dublin, taking honours in Science and Medicine during his academical career. He joined the Army Medical Staff, and, after passing through the Army Medical School, was appointed Assistant-Surgeon in the 16th Lancers.

When wounded in battle, horses are attended to as soon as possible. A veterinary officer with assistants follows close on the fighting line, and those animals with only slight injuries are collected together and sent to the veterinary hospitals, established at the fixed camps. Those very badly wounded are shot. Horses killed in battle are either buried or burned, according to the climate. In South Africa burial is resorted to.

There is nothing like a tree to keep air pure, remarks a scientist. Its leaves decompose carbonic acid. The volume of carbonic acid exhaled by a human being in twenty-four hours is roughly estimated at 100 gals. If a single tree of moderate size were growing where a dozen, or even as many as twenty, men were sleeping, the purifying action of its leaves would insure that the air was kept quite fresh.

Lieutenant-Colonel John Anderson, M.B., I. M. S., Civil Surgeon, Agra, comes to Lucknow as Civil Surgeon, in succession to Lieutenant-Colonel McConaghay, who officiates as Inspector-General of Civil Hospitals, Bengal, *vide* Colonel Hendley. Colonel McConaghay will be much missed from the station where his unfailing courtesy and skill have made him a most popular Civil Surgeon. He left for Calcutta on Saturday evening.

The leave granted to Colonel T. H. Hendley, C.I. S. I. M. S. (Bengal), Inspector-General of Civil Hospitals, Bengal, for eight months on private affairs, is granted. Lieutenant-Colonel J. McConaghay, M.D., I. M. S. (Bengal), Civil Surgeon, Lucknow, is appointed to officiate as Inspector-General of Civil Hospitals, Bengal, during Colonel Hendley's absence.

A St. Petersburg correspondent says an invalid who has reached the remarkable age of 140 years is now lying in the hospital of Tomak. He still remembers Catherine II., and talks of having buried his wife a hundred years ago and his son 90 years back. His record was nearly approached by a Georgian, who died a few days ago in Tiflis at the age of 128.

Chemistry is an advancing science. In a paper read recently before the Chemical Society on "The Interaction of Ethyl Sodiomethyl malonate and Menthyle Oxide," we learn that it "seemed probable that this dibromide would be formed by the direct addition of hydrogen bromide to monobromodike to trimethylhexamethylene"—probably a useful statement to remember.

A Bill has been introduced into the Assembly at Albany, New York, to restrict nurses from revealing information concerning the ailments and afflictions of patients acquired in a confidential capacity. The obligation of professional secrecy laid by the law on medical practitioners is by the terms of the Bill placed on nurses when acting under the direction of duly licensed physicians and surgeons.

Deputy Surgeon-General Thomas Murray (retired list), Indian Medical Service, died at Upper Norwood on February 15th. He joined the Bombay Army on March 7th, 1846, and retired on July 31st, 1876.

"Love gives itself, and, if not given,
No genius, beauty, worth nor wit.
No gold of earth, no gem of heaven,
Is rich enough to purchase it."

Surgeon Lieutenant-Colonel Campbell goes from Purneah to Dacca, relieving Surgeon Lieutenant-Colonel Moderick McLeod, who is off home.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

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Current Medical Literature.

MEDICINE.

Furred Tongue in Health and Disease.

MULLER (*Munch. Med. Woch.*) says:—The thickness of the "fur" or "coat" on the tongue in health varies greatly. Healthy "fur" is formed chiefly by abnormally large papillae filiformes, which differ widely in size in different individuals. In children they are slightly developed, and in old age they are often atrophied, so that the tongue appears smooth, red, and polished. A furred tongue, therefore, does not necessarily point to a catarrhal stomach, but may be perfectly physiological. Hence it is useless to attempt to scrape the fur away. The best method of cleansing the tongue is to eat solid food, especially dry bread. When the fur is pathological, it is usually due to acute diseases; whether these affect the digestive organs primarily or secondarily is immaterial. In chronic diseases of the digestive tract a furred tongue is less frequent, and even in chronic gastric catarrh it is less often present than it is normally in healthy, middle-aged subjects. The composition of fur is the same in health and disease, though the quantity of each constituent present may vary greatly. Epithelium, bacteria, streptothrix, fragments of food, and leucocytes are constantly found. Of these the leucocytes alone are possibly of diagnostic importance, since a great increase in their number takes place so constantly in carcinoma of the stomach and in pulmonary phthisis, that chance seems to be excluded? The increase in the thickness of the fur in disease is probably related to the substitution of a liquid diet for solid food, and to the impossibility of keeping the mouth clean by brushing the teeth as in health. In some diseases the fur is increased owing to a desquamative catarrh of the tongue; this is most common in local diseases of the mouth, such as stomatitis, and in the acute exanthemata. Pathological fur is more easily scraped off than physiological.

Exclusive Milk Diet in Diabetes.

BRUGER (*Wien. Klin. Rundsch.*) refers to the contradictory result so obtained by different observers by an exclusive milk diet in diabetes as recommended by DONKIN, KULZ and others (*Review*), and gives the conclusions drawn from seven cases of his own. In two patients, mother and daughter, the sugar disappeared from the urine, and did not return even when a diet rich in carbohydrates was given. Both of these were slight cases, and had shown great tolerance to carbohydrates before the exclusive milk diet was begun. The others were all severe cases of diabetes—two in young, and three in elderly persons. In these the milk diet invariably caused a largely increased excretion of sugar—three to four times the amount excreted during a meat diet. One patient, whose urine was free from sugar when the milk diet was begun, immediately excreted 1295.6 gr. of sugar, or more than two-thirds of that contained in the milk, and the excretion of sugar continued for two days after the milk was abandoned. All the patients lost weight, and those with a severe form of diabetes objected to the diet. In one case it caused nausea and vomiting, and was abandoned after two days' trial.

Clinical Lecture on the Causes and Cure of Insomnia.

SIR JAMES SAWYER (*British Medical Journal*) declares that hypnotics should be given only in exceptional cases, and only when unavoidable. As a rule, the successful treatment

of a case of sleeplessness follows from the discovery of its cause. In the severer forms of psychic insomnia sleep must often be secured by the action of some efficient hypnotic, of which opium and chloral are to be preferred. A few nights of good sleep will do more than anything else to restore to the brain the power of sleeping without further aid from drugs. A patient should never be allowed to dose himself with hypnotics. An overworked man or woman must never be permitted to go on with overwork and habitually secure sleep by chloral or any other hypnotic. It is mostly worry, not overwork, or it is work under wrong conditions, which brings unrest. When a drug is necessary, potassium bromide is by far the best hypnotic in well-nourished patients and in the slightest cases generally. It is marvellously powerful in producing nervous calm; it is a direct and quite safe brain sedative. After getting into bed, gr. xxx. to lx. dissolved in water should be the dose. In many cases of chronic wakefulness arising from prolonged mental strain, the patient is distinctly anæmic. This patient needs hæmatinics, of which the best are iron and arsenic, singly or combined. The diet must be generous, containing plenty of fish, meat, and eggs. For such a patient alcohol is often the best hypnotic. Alcohol is the best hypnotic in many cases of chronic psychic insomnia when the patient is worried and weakly, sorrowful and anæmic. A bicycle, a horse's back, gardening in the open air, muscular exercise of various kinds—all have a place in the cure of insomnia. Sunshine is a valuable adjuvant in the cure of insomnia. Monotonous counting has been suggested. Deep inspirations often help to induce sleep. Bed clothes should be sufficient, but not excessive. In all cases the bedroom window should be open all night and all the year round, but so arranged that there be no draught. A hair mattress is the best bed. In some cases a little food taken just at the time for sleeping is an efficient soporific. In the toxic kinds of insomnia the consumption of the disturbing tobacco, tea, etc., must be lessened or stopped. Senile insomnia is very obstinate. Perhaps the bromides, with full doses of hop or henbane, are the most efficient remedies in these cases.

Differential Diagnosis between Hæmatemesis and Hæmoptysis.

Hæmatemesis.

The hæmorrhage is preceded by nausea or sense of weight in the epigastrium. Blood dark brown, often contains particles of undigested food, acid reaction. Blood is vomited. Pain in epigastrium. Stools often darkened by blood.

Hæmoptysis.

Preceded by saltish taste in the mouth. Blood is bright red and frothy, alkaline reaction. Blood usually coughed up. Physical signs show disease of lungs or heart. Stools unaffected.

—*Cyclopædia of Medicine, Gould and Pyle.*

Derangements of the Organs of Vision which may be attributed to Auto-infection, or to Auto-intoxication.

J. M. WOODWARD's headings of this subject are functional derangements (neurasthenia and migraine) and organic derangements (rheumatism, BRIGHT'S disease, and intra-ocular hæmorrhage). In neurasthenic cases we find imperfect gastric and intestinal digestion with constipation and a sluggish liver. These patients complain of blurring of vision, lachrymation, photophobia, inability to read without pain in the eyes, etc. As soon as the primum visus are regulated, the ocular disturbances disappear. A similar line of reasoning applies to migraine and the other bodily states mentioned. The importance of the matter lies in the proper recognition of the underlying cause in each individual case.—*New York Med. Jour.*

SURGERY.***Intra-uterine Immunization to Syphilis.***

THE *Medical Age* says:—The tendency of old errors to assume new faces sometimes makes their recognition difficult. An ingenious theory has lately been revived that intra-uterine immunity is conferred on the offspring by the secondary syphilis of the mother. This is certainly not borne out by the clinical facts of the case.

Twenty-five years ago PROFETA declared that a healthy child born of a syphilitic mother could be nourished safely by that mother, or by a syphilitic nurse, even though the infection of the mother had occurred before or during pregnancy, and that the transmission of syphilis was impossible from mother to child. This so-called law of PROFETA has been somewhat enlarged upon by a certain class of syphilographers, and now finds its formulation in the statement that "healthy children born of syphilitic parents are not susceptible of infection." In fact, it is maintained that there is an intra-uterine immunization to syphilis conferred by infected parents.

This theory is not adequately supported by clinical evidence. There is no proof that tertiary syphilis in the mother gives immunity to the offspring, or that an immunity secured by the mother by previous infection is transmissible to the child.

The part of the father is involved in even less obscurity. There has been little question of the ability of the father to transmit syphilis. There is no evidence to show that paternal syphilis in any form confers a complete or even partial immunity to the offspring.

The conclusions arrived at by MORROW may be said to accord best with known clinical facts:—

1. A syphilitic man may beget a syphilitic child, the mother remaining exempt from all visible signs of the disease; the transmissive power of the father is, however, comparatively restricted.

2. A syphilitic woman may bring forth a syphilitic child, the father being perfectly healthy; the transmissive power of the mother is much more potent and pronounced, and of longer duration, than that of the father.

3. When both parents are syphilitic, or the mother alone, and the disease recently acquired, the infection of the fetus is almost inevitable; the more recent the syphilis, the greater the probability of infection, and the graver the manifestation in the offspring.

4. While heredity transmission is more certain when the parental syphilis is in full activity of manifestation, it may also be effected during a period of latency when no active symptoms are present.

5. Both parents may be healthy at the time of procreation, and the mother may contract syphilis during her pregnancy and infect her child *in utero*. Contamination of the fetus during pregnancy is not probable if the maternal infection takes place after the seventh month of pregnancy.

The most that can be said in favor of the modern form of PROFETA's so-called law is that mothers infected before gestation rarely communicate the disease to their offspring after their birth. The seductive conceptions which have led to the consoling theories of intra-uterine immunization unfortunately lack the support of clinical evidence necessary for their substantiation.

Lessons from a Series of One Hundred Cataract Operations.

* F. T. ROGERS, M.D., says:—

1. More attention should be paid to the general condition of the patient, and the presence of any systemic disturbance should influence the prognosis.

2. All operative procedures on the crystalline body should be done under the best possible illumination.

3. Providing that it is large enough, the exact site of the corneal section does not materially influence the result.

4. The combined operation is the safest and the easiest for the operator of limited experience.

5. The most frequent complications—iritis and iridocyclitis—should be combated by the early instillation of atropin, and their existence does not necessarily prevent an ultimate good result.

6. Dissection of the capsule can be done with comparative safety and materially increases the acuity of vision.

7. Infection of the wound does not in all cases destroy the sight, and careful and assiduous treatment may save an apparently doomed eye.

8. The experience gained in the first series of operations has, besides improving the technique of operation, impressed me profoundly with the possible dangers which may arise and will prevent me from advising operative procedures so freely as I have done in the past without a frank statement to the patient of the possible outcome.

9. For some reason, I have had more iritis in these cases than I should, but whether due to defective skill in operating or insufficient care in the after-treatment, I am unable to decide.

Treatment of Impotence.

DR. J. ZABLUDOWSKI advises massage of the testicles and spermatic cord, the perineum and the inguinal region, in both the recumbent and side positions. Massage of the abdomen is then practised, followed by resistance movements of the lower extremities, the muscles of the back and of the abdomen. Sensitiveness of the sexual organs soon disappears. The penis is never touched during the manipulations, the treatment being not aphrodisiac, but directed toward regenerating nervous weakness and restoring the general condition. Attempts at coitus are forbidden for from six to eight weeks. Hygienic and psychic influences are also brought to bear upon the patient.

Spontaneous Luxation of the Lens and Zonular Cataract.

M. F. WEYMAN (*The Ophthalmic Record*) draws the following conclusions: That in the vast majority of cases spontaneous lenticular dislocation is due to the same cause as zonular cataract. Zonular cataract is only one of several congenital defects (myopia, weakness of the Zenula of ZINN, liquefaction of the vitreous, iridic rigidity, amblyopia). A spontaneously luxated lens surrounded by its capsule does not usually develop a cloudy zone. If a cloud is found (zonular), it should not be attributed to the fact of dislocation. A lens disturbed in its trophic relations degenerates in two ways only, at point of capsular injury or irritation, and totally. Clouding of the luxated lens-capsule is not a whit faster than in the normal conditions. Luxation into the anterior chamber should be attended to at once, as it is apt to cause pressure, necrosis of the cornea and iritis. Extraction is to be preferred to reduction into the vitreous, but abandoned in favor of the latter when the other eye is lost, and extraction unduly risky, and when the lens has without irritation resided back of the iris before. Probably the best method is dissection.

OBSTETRICS AND GYNÆCOLOGY.

Prevention and Treatment of Post-partum Hemorrhage.

UNDER the head of prophylaxis to be adopted in all cases, great stress is laid on two points by Dr. BYERS, of Belfast:—

1. The proper management of the third stage.
2. Never deliver in the absence of pains.

The first head, the chief thing mentioned, is that which is emphasised so strongly in the Botunda teaching. Never take the hand off the fundus until the uterus is firmly contracted and the binder applied up to the hand.

The treatment advocated for hæmorrhage from relaxed uterus embraces the following measures, which are resorted to in the order named:—

1. External uterine massage.
2. Irrigation of the uterus with hot saline solution.
3. Introduction of hand into uterus.
4. In case of failure of the first three, bi-manual compression of the uterus.
5. Gause plugging of the uterus.
6. Drawing downwards of the uterus.
7. Injection of iron—mentioned only to be rejected.

If the hæmorrhage comes from lacerations of the genital tract, it is recommended to stitch if you can, and to plug if you can't.

Septicæmia, Acute Bacteriæmia and Pyæmia, Chronic Bacteriæmia; the Indications for Hysterectomy and the Indications for Abdominal Section and Drainage in Puerperal Infection.

FROM a review of recent literature, H. J. BOLDT (*New York Medical Journal*) would adopt the following definitions: Septicæmia (acute bacteriæmia) is a blood disease caused by parasitic micro-organisms invading the circulatory system from some primary seat of infection, the infection producing elements multiplying so rapidly in the blood that the patient generally succumbs within five days after the disease begins. Usually the parasitic germ is the streptococcus pyogenes; other pathogenic germs may, however, be present also. Pyæmia (chronic bacteriæmia) is likewise caused by the invasion of the system by the streptococcus pyogenes alone or in conjunction with other pathogenic germs, but they disseminate from an infected thrombus. They are not diffused into the system in one large quantity, neither are they possessed with the same fondroyant virulence from a clinical view point. The production of the abscesses found in the condition called pyæmia, upon which the pathological difference between the two conditions depends, is due to the parasitic organisms finding a resting-place outside of the blood circulation, and there giving rise to abscess formation. The indications for hysterectomy, under the conditions stated, he gives in the following rules: (1) If, after a full-term delivery or an abortion, there are no conception products in the uterus, and the patient has fever with anæsthesia, chills, and a small and frequent pulse (130 to 140 or more), if careful observation should show that the infection comes from the uterus alone, that organ being enlarged, and relaxed in its consistency, if there is no evidence of peritonitis, the parametria being free, if streptococci are found in the uterus, and, especially, if the blood shows the presence of pathogenic germs, as in PROCHOWNICK's patients. (2) If there are decomposition pro-

ducts in the uterus, which cannot be removed satisfactorily per vaginam; if, on doing a Cesarean section, the uterus is found septic, then an abdominal hysterectomy is indicated. Abdominal section with drainage is indicated in diffuse septic peritonitis when there is no evidence of an exudate in the pelvis. The annexa are to be left undisturbed unless there is some positive indication to remove them.

Post-Operative Hemorrhage.

IN the *Cincinnati Lancet-Ohio*, A. H. COORDIER reports three cases of post-operative hæmorrhage.

In one the patient died before it could be stopped, and two recovered after re-opening the abdomen.

He says that in diagnosing post-operative hæmorrhage the operative history will aid much.

Symptoms of shock and hæmorrhage are very similar.

In suspected cases a single stitch in incision out will tell.

In cases in which a bleeding is anticipated, the tube should be used.

The surgery must be quick and decisive in these cases.

Large quantities of normal saline solution will save many cases. This should be used both per rectum and into the veins.

Strychnia, belladonna, etc., will not control bleeding from a uterine or ovarian artery any better than from a radial or temporal.

The surgeon should do what his surgical conscience tells him is right.—*Charlotte Med. Jour.*

Acute Senile Endometritis.

IN the *American Journal of Obstetrics*, L. H. DUNNING says that the treatment of acute senile endometritis must to some extent depend upon the intensity of the inflammation and the extent of the secondary lesions.

Where the appendages have not become involved, a thorough dilatation of the cervical canal, douching the uterine cavity with an antiseptic solution, a careful yet thorough curettement with the sharp curette, the application of a caustic such as acetic acid or pure carbolic acid, followed by alcohol, and finally establishing and maintaining good drainage, will result in a cure in most instances. In one case of large pelvic abscess complicating the disease, a cure was effected by curetting the uterus and draining the abscess through a vaginal incision.

If there be retroversion, this displacement must be corrected by appropriate means, and if the remnants of a sloughing fibroid be found it must be removed. This can usually be accomplished by a sharp curette. If it cannot so be removed, a vaginal hysterectomy may be resorted to.

Should the uterine appendages be found markedly diseased, they should be extirpated, as well as the uterus, by the vaginal route.

Primary Tuberculosis of the Vagina.

JORDIDA reports the case of a young married woman without any known family history of tubercle, who shortly after being delivered of a child developed tubercular ulceration of the vagina, with secondary glandular infection. The husband was healthy and free from any sign of tubercle. The woman showed no signs of tubercle elsewhere. The probable source of infection was a woman dying of pulmonary phthisis whom the patient was in the habit of visiting before her confinement. The tubercle bacilli (which were found in the vaginal secretion and in the ulcer) probably first gained a footing in the small lacerations which took place during parturition. As no improvement followed ordinary medical treatment, the diseased surface was freely scraped and scorched with a cautery, after which cure followed.—*Brit. Med. Jour.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Functions of the Ovary.

DUDLEY notices the more recent views in regard to the internal secretive functions of the ovary, calling attention particularly to the experiments of KNAUER, MARCHESE, etc., and especially to the case of GLASS, where the transplantation of the ovary from another female seemed to re-excite the whole reproductive life. He thinks that the first function of the ovary coincident with its rapid development at the time of puberty is an internal secretion, and reviews the subject of ovarian therapy, quoting various authorities to show its advantages in amenorrhoea, chlorosis, dysmenorrhoea, cases of loss of ovary, etc.—*Jour. Amer. Med. Assoc.*

Tonsils as Portals of Infection.

JULIUS ULLMAN concludes: (1) That the normal tonsil has a physiological function, probably protective to the organism. (2) That, being in itself often diseased, the physiological function is often impaired, and that instead of being protective, it is the nidus for the growth of pathogenic organisms and the distribution of their poisonous products into the system. (3) That many grave and fatal general infections have their origin in the tonsils. (4) That if the exanthemata, especially scarlatina, are of bacterial origin, the tonsil acts in part as port of entry. (5) That acute articular rheumatism and the diseases often associated with it, endocarditis and chorea, in a great majority of cases are due to the action of attenuated bacteria, their toxins, or both entering the system through a diseased tonsil. (6) That in rare cases of typhoid fever, in which no intestinal ulcerations can be demonstrated, the similarity of the tonsillar tissue and PAYER'S patches suggests the portal of entry of the EBERTH bacillus to be the tonsil. (7) That scrofulosis is often associated with diseased tonsillar tissue, and that the tubercle bacillus often enters the system *via* the tonsils. (8) That the tonsil is too little examined at necropsy, and that much light might be shed on fevers of uncertain origin by bacteriological and histological examination of it.

Contributions to the Pathology of the Bronchial Glands in Childhood.

DR. N. ALEXEJEV (*Djetsk Mediz*) considers an inflammation of the bronchial glands in children a very serious disease, as it may serve as the starting point of tuberculosis. The diagnosis of this disease is based chiefly upon the following symptoms which vary with the intensity of the attack:—

1. Dulness in the interscapular region as high as the third to sixth dorsal; also on the upper part of the sternum and claviculo-sternal junction. On percussion we often notice change in the resistance.
2. Prolonged expiration, with bronchial or disturbed breathing at the interscapular region and over the sternum.
3. Disturbance of circulation, one or both-sided oedema of the face, dilatation of the veins of the neck and breast, cyanosis, enlargement of the heart and palpitation.
4. Nervous symptoms, such as dyspnoea, change in voice, aphonia, convulsive cough, attacks of asthma, laryngospasm.
5. Irregular temperature, emaciation, anorexia and sweating. These symptoms give rise to the suspicion of tubercular infection.
6. Swelling of the peripheral lymphatic glands. Exclusion of syphilis and tuberculosis.

Bacterial Diagnosis of the Gonococcus.

OSCAR RICHARDSON gives minute directions for the detection of the gonococcus. The necessity of rigidly subjecting the suspected gonococci, obtained in cultures, to certain criteria described, is emphasised by a recent observation of a case of acute arthritis of the knee, clinically of gonorrhoeal origin. Cover-glass examination of the exudate showed Gram decolorizing cocci inside of the pus cells, which were regarded at the time as gonococci. At the time the pathologist had no doubt that the case was one of gonorrhoeal arthritis. The cultures, however, from the exudate in the knee showed an organism which had a considerable resemblance to the gonococcus, so much so, that only after it had been cultivated through a number of generations, and had been carefully subjected to various tests, it was declared not to be the gonococcus.—*New York Med. Rec.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Hospital Air.

THE *Medical News*, in quoting from *La Rifer. Med.*, says that R. BINAGHI gives the result of his experiments in the study of the atmosphere of the hospital and its relation to wound infection.

According to the theory that a relation might be found to exist between meteorologic factors and the number of germs in the air, analyses were made of the air of the operating room, wards and dispensary at frequent intervals from November to June, the variations in temperature and pressure of the atmosphere at the time being noted. Petri dishes with glycerin-agar were exposed to the air of the room to be examined at different distances from the floor and for definite length of time; after proper cultivation, solutions of the colonies in sterile water were made and injected into the jugular vein of rabbits for tests and for control tests: of fifty-two rabbits inoculated, thirty-one died (59.8 per cent.), thirteen of these deaths being from staphylococcus infection. It was observed that the greatest impurity of the air was found in the dispensary, next in the wards, and, lastly, in the operating-room, giving a mortality respectively of forty, thirty, twenty-five, and fifteen per cent., i.e., the air of the dispensary contained the most staphylococci, while the air of the operating-room contained the least of these germs. The blood of the animal thus killed by inoculation was found to contain, in addition to the staphylococci, the bacillus pyogenes fetidus; the bacillus coli; the bacillus typhi similis; the diplococcus of FRAENKEL and the bacillus mucosus. His conclusions are: (1) Staphylococci are the germs most frequently found in hospital air. (2) Their number varies and depends upon the number of people coming into and going out of the room. (3) The influence of temperature and of atmospheric pressure cannot be definitely stated, but the author's investigations proved that the germs were more frequent in the presence of high temperatures and pressures. (4) There would seem to be much justification for the idea of wound infection from atmospheric air, hence the importance of plenty of light and air in hospitals, especially in the operating rooms, and advisability of having as few people present at an operation as possible.

Food Value of Mushrooms.

A GREAT deal has been said concerning the immense amount of valuable food which was daily going to waste in the shape of edible fungi. We are told that in many parts of the world these articles form the staple articles of diet of the inhabitants. Our attention has been called to the natives of Patagonia and Tierra del Fuego, who are said to be of gigantic stature, and to exist principally on vegetable fungi, and to certain African tribes, who value mushrooms so highly that one of them, the *polyporus sacer*, is worshipped as a god. Chemists have assured us that mushrooms belong to the animal rather than to the vegetable kingdom, seeing that they possess a larger percentage of nitrogen than any other class of vegetable life. They are, we are told, essentially protein in composition, as much so, pound for pound, as butchers' meat. Two German chemists, ROUBAUSCH and ZIEGLER, stated some years ago, as a result of chemical investigation, that mushrooms deserve to be placed with meat as sources of nitrogenous nutriment. One man in Thuringi is said to have lived upon nothing but mushrooms for thirty years, and to have died a centenarian. Comparison has even been made between mushrooms and

other articles of food to the detriment of the latter. Thus chemical analysis has shown mushrooms to contain from 30 to 35 per cent. of protein, while bread only contains 8 per cent., oatmeal 10 per cent., potatoes 5 per cent., and barley meal 6 per cent. of protein. Against this, however, we have the opinion of a Dr. KITCHENER, who in 1834 stated, in a publication called "Cook's Oracle," that he did not believe that mushrooms were nutritious. Dr. JONATHAN PEREIRA, in his "Treatise on Food and Diet," published in 1843, said:—Mushrooms are difficult of digestion, and on certain constitutions act injuriously. Invalids, dyspeptics, and those with delicate stomachs, will act prudently in avoiding the use of this doubtful order of foods. Other writers have expressed similar opinions, not, however, based on experimental work, and therefore not absolutely reliable.

Pain and Suffering in Malpractice Case.

A BOY bruised his right leg, or shin-bone, just below the knee. After about a week, considerable pain ensuing, a physician was called in to treat the wound. According to the allegations he persisted in diagnosing the case as one of inflammatory rheumatism, and in treating it as such, until after a great quantity of pus had formed, and the leg had finally to be amputated. But the physician denied all the allegations which attempted to charge him with liability on account of malpractice. He contended that although he had made a mistake as to the first diagnosis and treatment, that did not result in the necessity for the amputation, but that the amputation resulted from an entirely different disease, which would have been the result notwithstanding the original mistake. Quite a volume of evidence was introduced *pro* and *con*, and the jury returned a verdict for the defendant. However, the Supreme Court of Georgia holds, *Moon vs. McRae*, that the judgment in the physician's favour must be reversed, and a new trial had, on account of an erroneous instruction to the jury. It holds that it was error to charge the jury, in effect that if the amputation itself did not result from the defendant's treatment, there could be no recovery of damages, or, in other words, that damages could not be recovered for pain and suffering from unskillful treatment by the physician, unless such treatment was the cause of the loss of the limb. And it holds that, as elements of damages claimed, pain and suffering were sufficiently set forth in the petition, which set forth the extent of pain and suffering and contained allegations which clearly attributed much of it to an improper diagnosis, and to the delay in administering the proper treatment until pus had so accumulated in the diseased leg as to unnecessarily add to the pain and suffering, the damages claimed in the petition being not only for the loss of the leg by amputation, but also for pain and suffering occasioned by the alleged mistreatment.—*New York Med. Rec.*

Cereals, Emulsions, and Proteids in Infant Feeding.

T. M. BOTCH believes that the only value of adding cereals to infant food, that is, milk, lies in the fact that their presence assists in the finer subdivision of the caseinogen coagulum, and that the same effect can be produced by modern methods which are much less irrational. He is disposed to favor emulsions as being at least harmless. He believes further that the management of the coagulum depends on the management of the caseinogen, and that the coagulum will be small and fine if the caseinogen is kept down to its proper relative proportion to the whey proteids; also that by using whey we can obtain these desired percentages of whey proteids, and that in all probability it will in the future be proved that by using whey the coagulum will be finer than that obtained from the use of barley water or any other cereal diluent.

THERAPEUTICS & PHARMACOLOGY.

Action of Morphine on the Stomach.

FROM experiments on dogs, HIRSCH finds that morphine given hypodermically has a very marked action on the expulsive power of the stomach, and on the secretion of HCl. Normally, water poured into the stomach is all passed into the duodenum in about ten minutes. If, however, a dog is given a hypodermic injection of 1 cgm. (1 gr.) of morphine for each kilo of body weight, there is an immediate spasm of the pylorus, which persists for hours, and is so severe that no fluid passes into the duodenum. There is no diminution in the peristalsis of the rest of the stomach, so that the delayed expulsion is not due to paralysis of peristalsis. This tonic spasm had already been noted by ROSSBACH and REIGEL. As it has been shown that both the local ganglia and the muscle fibres have their excitability depressed after morphine, it follows that the tonic spasm must be central in origin, and this was proved by ROSSBACH's experiment, when cutting the vagus caused abolition of the contraction on that side. HIRSCH holds that probably the centre in the corpora quadrigemina is stimulated. In addition to this delaying of expulsion, morphine has a distinct effect on the HCl secretion. At first this is diminished, but afterwards is markedly increased. The initial diminution lasts the longer the greater the dose, and, according to HIRSCH, is due to the elimination of morphine into the stomach (which lasts for about an hour) diminishing the activity of the gastric glands. The subsequent rise, he thinks, is probably due to a central stimulation acting through the vagus. REIGEL, from experiments on men, found that morphine caused distinct delay in emptying of the stomach, and that the HCl is at first diminished and afterwards abnormally increased, and that these actions are proportionate to the dose, and always more distinct when the drug is given hypodermically than *per os*. HIRSCH holds that there is a very remarkable correspondence between clinical and experimental observations; consequently he is inclined to believe that there is also a tonic spasm of the pylorus in man, which may account for the gripping pain frequently recorded after morphine.—*Centralbl. f. innere Med.*

Salol in Diabetes.

TESCHEMACHER (*Therap. Monatsh.*, Berlin,) has tried EBSTEIN's plan of treating diabetes by large doses of salol. Of nine cases, three severe cases showed no improvement under salol, but the other six were markedly benefited. These were moderately severe cases, in which a strict diet caused the sugar to disappear from the urine, though the improvement was only very gradual. Salol caused the sugar to fall immediately. In one case it dropped from 4 per cent. to a trace, or less than 0.1 per cent., and in two other cases from 1.5 per cent. to 0 or 0.1 per cent. In a case where strict diet had only reduced the percentage from 4.6 to 3.6, salol in five days caused the sugar to entirely disappear. The salol is administered in 15-gr. doses, four times a day, for five days. In no case were gastric disturbances or ringing in the ears noted. TESCHEMACHER notes, as a hitherto undescribed observation, that the drug eliminated in the urine refracts polarized light to the left. In four normal urines, after salol was given, a refraction of from 0.4 or 0.5 was observed; so that TESCHEMACHER concludes that, in the case of a diabetic patient taking salol, refraction to the left of 0.3 to 0.5 represents either merely a trace of sugar, or at most 0.1 per cent. TESCHEMACHER thinks that in salol we have a drug which can reduce the

sugar, in a trace in moderately severe cases of diabetes within a few days. The action does not seem to last long, as the sugar gradually reappeared after the drug was stopped.

**Cocaine Habit of Ten Months' Duration
treated by Complete and Immediate
Withdrawal of the Drug.**

GEORGE WILLIAM NORRIS (*Philadelphia Medical Journal*) tabulates the following facts: (1) Cocainism is the most insidious of all drug habits. The use of the drug being unaccompanied by disagreeable after-effects—headache, nausea, vomiting, etc., which are met with after the ingestion of opium or alcohol—the vice is readily and rapidly established. (2) Cocainism is occasionally acquired by the local use of the drug in diseases of the nose and throat, teeth, etc., but more often as a substitute for opium or alcohol. (3) Cocaine is eventually tolerated by the system in huge doses. (One case is recorded in which gr. lx. were daily consumed.) (4) A relatively large number of habits are found in the medical and dental professions. (It is said thirty per cent.) (5) The continued indulgence in cocaine invariably, and usually soon, leads to marasmus, with mental, moral, and nervous degeneration. (6) The smallest fatal dose on record is gr. $\frac{1}{2}$ hypodermically. (7) While many cases of acute intoxication are being continually reported, there are relatively few fatal cases. The majority of such are the result of large doses injected into the urethra and bladder. (8) The amount of cocaine sold yearly is rapidly increasing, and its self-prescribed use among the laity and lower classes is becoming proportionately more frequent.

Hair Tonic.

R	Pilocarpin. hydrochlorat	...	...	gr. v.
	Ott. roseæ	...	...	m. viij.
	Ol. rosmarini	...	...	℥iv.
	Lin. cantharidis	...	...	℥iv.
	Glycerini puri	...	...	℥i.
	Ol. amygdalæ dulc	...	...	℥ij.
	Spir. camphoræ	...	...	℥ij.

M. S. Rub well in, morning and night.

—WHITLA.

For Phthical Cough.

R	Codein	...	...	gr. iv.
	Ac. hydrochl. dil	...	...	℥ss.
	Spir. chloroformi	...	...	℥iss.
	Syr. limonis	...	...	℥i.
	Aquam	...	ad	℥iv.

M. ft. emuls. S. Teaspoonful at frequent intervals.

—MURRELL.

**For Amenorrhœa in debilitated and
anæmic states.**

R	Hydrarg. chl. corros.	...	...	...
	Sodii arsenit.	...	...	...
	Strych. sulphat.	...	...	aa gr. i.
	Potass. carbonat.	...	...	...
	Ferri sulphat	...	...	aa gr. xxx.

M. ft. pil. No. lx. S. One after each meal.

—LUTAUD.

For Tuberculous Laryngitis.

R	Menthol.	...	...	...
	Ether. sulphuricid.	...	...	...
	Ol. pini sylvestris.	...	...	...
	Tinct. iodi	...	...	aa ℥ij.
	Tincture benzoini co.	...	...	ad ℥ij.

M. S. Ten drops on an oro-nasal inhaler, to be worn as much of the time as possible.

—W. FOWLER.

Correspondence.

CIVIL ASSISTANT SURGEONS AND OTHERS: STOP "GALL."

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—“TOMTIT, M.B.,” “LIEUT.-COL., I. M. S.,” and “METAMORPHOSED APOTHECARY,” are indulging in a controversy, through the columns of your paper, which is likely engender bad blood among people following the same profession. Hard and unkind words neither ennoble one, nor help any good cause. The I.M.S. and the Military and Civil Assistant Surgeons can surely represent their respective grievances, and try to get them redressed without either throwing dust on each other, or trying to run each other down. “TOMTIT, M.B.,” has very lucidly represented the grievances of the Civil Assistant Surgeons, and I think he deserves the thanks of every member of this service. The only mistake he made was that he said some unkind things about the Military Assistant Surgeons. None regrets it more than I do. The days of “old fossils of metamorphosed apothecaries” are gone, and the present lot are worthy members of the profession, and deserve every respect. “TOMTIT, M.B.,” in his letter, published in your issue dated 20th February, says: “As to whether the title of Assistant Surgeon has been deservedly gained or not, there will be always two opinions, &c., &c.” On the contrary, I think there cannot be two opinions on this point. The title “Assistant Surgeon” is a relative one. It means an assistant to a surgeon. A graduate of one of the local Universities is a surgeon, and it is not till he enters Government service and becomes assistant to a surgeon that he is addressed as “Assistant Surgeon.” A student of the military section of the College, on passing his final examination, is attached to a regimental hospital and becomes assistant to a surgeon, and is therefore justly called an “Assistant Surgeon.” The old term “apothecary was a misnomer. “TOMTIT, M.B.” is an Assistant Surgeon at this moment, but if he gave up service, he would no longer bear this title.

Why “LIEUT.-COLONEL, I.M.S.,” should descend from his giddy height and condescend to take notice of “TOMTIT, M.B.’s” letter, I cannot understand. He says he has sympathy with many of the points raised by “TOMTIT, M.B.” If so, how is it that instead of writing in favor of those points he has only done his best to paint the Civil Assistant Surgeons as black as black can be? I would give him credit for sincerity of purpose if, while exposing the defects of this class of public servants, he had lent his support to those points which gained his “sympathy.” He must have been singularly unfortunate in meeting very bad

specimens of Civil Assistant Surgeons. He does not, I hope, think that Government are going to judge of the capabilities of Civil Assistant Surgeons by his experience of the men of this department. I suppose "LIEUT.-COLONEL, I.M.S.," will admit that there are some third-rate men in the I.M.S. Does that mean that the I.M.S. men as a class are incompetent? Surely not. Because he has met bad specimens of Civil Assistant Surgeons, therefore they must, as a class, be incompetent and unfit to hold charge of districts, is a funny argument indeed. By the way, "LIEUT.-COLONEL, I.M.S.," in his letter (*Indian Medical Record*, dated 26th December), referring to Civil Assistant Surgeons, uses the expression "Babu Sahib." May I enquire why? "Babu" was at one time a very respectable title in this country, but it has now come to mean a clerk—at least in the N.-W. Provinces and Punjab. To call an Assistant Surgeon a Babu is the height of rudeness. A Collector, who is the boss of the district, calls his Deputy and Tahsildar Deputy Sahib and Tahsildar Sahib; a District Judge calls his Sub-Judge and Munsiff Sadarala Sahib and Munsiff Sahib; but the majority of I.M.S. men have too high notions of themselves, and do not condescend to call their assistants anything but "Babu," or "Babu Sahib." Why cannot "LIEUT.-COLONEL, I.M.S.," and men of his class, address their assistants "Assistant Surgeon Sahib" or "Doctor Sahib"? The I.M.S. men are all Captains, Majors and Colonels, and surely there must be some in this country who are doctors; and if not the graduates of the local colleges, who then? "LIEUT.-COLONEL, I.M.S.," referring to the Civil Assistant Surgeons, says: "Their grasp of the substance is lost in the magnitude of the shadow, &c., &c." Does he really mean it, or is it only the talk of a dyspeptic man? I could tell many a funny anecdote of some of the I. M. S. men as regards their "grasp of the substance," but it would serve no good purpose. To give "LIEUT.-COL., I. M. S.," his due, I must admit that some of his remarks and advice are very sound; the only pity is that he did not couch them in more acceptable terms. Some of the points raised by him deserve serious consideration, and, with your leave, I shall address my brother Civil Assistant Surgeons through the medium of your paper at some future time.

"METAMORPHOSED APOTHECARY," in his letter (*Indian Medical Record*, March 6th), while advocating the desirability of maintaining harmony between the Military and Civil members of the Assistant Surgeon class, has tried to make fun of the latter. Would it surprise him much if I told him that in a certain military station a large number of "Tomnies" and Non-Commissioned Officers used to come to a certain Civil Assistant Surgeon for medical advice, and got him regularly to treat their

wives, sisters and daughters, in their own quarters, in preference to sending them to the Station Hospital; and this, in spite of the Civil Assistant Surgeon being a *halki admi*? I know other instances of a similar nature. "METAMORPHOSED APOTHECARY" thinks that the opinion of the European public is not in favor of the "Babu class." By the term "Babu," I suppose he means Indian Civil Assistant Surgeons. If he is so anxious to maintain harmony, why use such expressions? It is only a silly attempt to snub the Civil Assistant Surgeons and likely to tempt one of them to use an expression in regard to "METAMORPHOSED APOTHECARY" and men of his class, which may not be palatable to them. As regards appreciation of merit by the public, I trust "METAMORPHOSED APOTHECARY" will allow me to tell him that the public is a shrewd public, and knows exactly where to get its money's worth. That the European public, at the time of illness, does not stick at colour or creed, but obtains the best advice procurable in the market, is a well known fact to many of the Military Assistant Surgeons, reluctant though they may be to admit it. However, let us cease making fun of each other, let us join hands and help each other to have our respective grievances redressed.

Yours, &c.,

CIVIL ASSISTANT SURGEON.

PROFESSOR GAJJAR'S PLAGUE SOLUTION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With an earnest and sincere heart, I am sending you my observations on Professor GAJJAR'S Plague Solution for public welfare, cherishing strong hopes of your kindly giving them a publication in the next issue.

It is well known that three charitable dispensaries have been opened in Bombay under the munificence of SHET NARAJI DWARKADAS, where patients are treated gratis with Professor GAJJAR'S Plague Solution. At the time when plague broke out lately at Tarapur, I came across this information in the vernacular papers, and I was inspired to give this solution a trial. My request was cordially complied with, and twenty plague cases were placed under the solution treatment, out of which, I am glad to note, twelve were cured. Among people of middle standing and the poor, it goes very difficult to manage for the patient's diet and careful nursing, according to the instructions of Professor GAJJAR. Among persons of the above class, two or three deaths occurred; in two or three cases treatment was commenced when the symptoms had already been aggravated, and hence these cases became unsuccessful. I think it doubtless that this solution possesses remarkable germicidal powers. I have marked with satisfaction the happy results if this solution be given in the very

beginning of the disease according to the instructions : the case makes no further progress ; no complication arises, and the temperature falls down to normal on the third or fourth day.

The successful and certain effects of this solution were testified in two far-advanced and hopeless cases of plague in which there was the advantage of their being specially treated and nursed in exact accordance with the directions given by Professor GAJJAR. I can say that between 70 to 80 per cent. of plague cases shall be cured if the patients be kept under hospital treatment and nursing exactly corresponding to the instructions of Professor GAJJAR. I think it a necessity to note that I invariably gave alternately with the plague solution diaphoretic, quinine, stimulants, digitalis, strophanthus, strychnine, nitroglycerin, &c., according as the symptoms presented themselves. At present I have been trying the plague solution in plague cases at Chinchin, and I wish to publish the results afterwards.

Yours, &c.,

MORESHWAR TRIMBACK SATHE,

Medical Officer, Chinchin, Tarapur.

(Member of the Indian Medical Association.)

Chinchin, 23rd March 1901.

Government Medical Gazettes.

MADRAS.

Major Allan Ewen Grant, M.B. CM., I.M.S., to act as Sanitary Comr., Madras, during the absence of Lieut.-Col. W. G. King, O.I.E., I.M.S., on leave.

Capt. Wilfred Constant Vickers, I.M.S., to be Dist. Med. and Sanitary Offr. and Supt. of Jail and Lunatic Asylum, Vizagapatam, in succession to Lieut.-Col. A. H. Leapingwell, I.M.S., retired.

Temp. Civil Asst. Surgn. P. P. Pinto to act as Asst. to Dist. Med. and Sanitary Offr., Tinnevely, during the employment of Mr. Evers on other duty.

The following notification of the Government of India is republished :—

The services of Capt. P. C. Gabbett, Indian Med. Service (Madras), are replaced at the disposal of the Government of Madras.

BENGAL.

Asst. Surgn. Basanta Kumar Roy, on return from leave, is apptd. to do supy. duty at the Med. Coll. Hosp., Calcutta.

Asst. Surgn. Biman Bihary Basu, Teacher of Materia Medica and Therapeutics, Temple Med. School, Patna, is apptd. to act as Teacher of Medicine and Midwifery in the same school, in addition to his duties, during the absence, on leave, of Asst. Surgn. Asdur Ali Khan, Khan Bahadur.

Asst. Surgn. Asdur Ali Khan, Khan Bahadur, Teacher of Medicine and Midwifery, Temple Med. School, Patna, is allowed privilege leave for two months from the 15th April 1901.

Mily. Asst. Surgn. A. E. DuBois, Asst. Supt. of Emigration, Embarkation Agent and Med. Inspector of Emigrants, Gouardo, is allowed privilege leave for three months from the 17th Dec. 1900.

Mily. Asst. Surgn. J. E. L. Chinal is apptd., from the 26th Dec. 1900, to act as Asst. Supt. of Emigration, Embarkation Agent and Med. Inspector of Emigrants, Gouardo, during the absence, on leave, of Mily. Asst. Surgn. A. E. DuBois.

Asst. Surgn. Durpananda Sen made over ch. of the Puri Jail to Capt. J. T. Calvert, I. M. S., on the 11th Feb. 1901.

Capt. J. T. Calvert, I. M. S., made over ch. of the Puri Jail to Asst. Surgn. Satish Chandra Bose on the 13th Feb. 1901.

Dr. A. McCabe, Dallas, made over ch. of the Jessore Jail to Asst. Surgn. Mohendra Nath Das on the 20th Feb. 1901.

Asst. Surgn. Satish Chandra Bose made over ch. of the Puri Jail to Asst. Surgn. Hari Mohan Sen on the 22nd Feb. 1901.

Maj. D. M. Moir, I. M. S., made over ch. of the Chittagong Jail to Capt. J. T. Calvert, I. M. S., on the 18th Feb. 1901.

Asst. Surgn. Sarat Chandra Sur made over ch. of the Bogra Jail to Asst. Surgn. Nobin Chandra Datt on the 15th Feb. 1901.

Asst. Surgn. Mohendra Nath Das made over ch. of the Jessore Jail to Senior Asst. Surgn. Brojo Nath Chowdhury on the 24th Feb. 1901.

Asst. Surgn. Khirode Chandra Ghosh held temp. med. ch. of the Umberia Subdivn. and Dispy. in the Howrah dist., from the 29th Jan. 1901 to the 7th Feb. 1901, during the absence of Asst. Surgn. Uma Chandra Roy, to give evidence before the Sessions Judge of Obapara.

Asst. Surgn. Pramatha Nath Banerjee is apptd. to the Lalbagh Subdivn. and Dispy. in the Murshidabad dist., vice Asst. Surgn. Ras Behari Baki, transferred.

Asst. Surgn. Ras Behari Baki is apptd. to do supy. duty at the Med. Coll. Calcutta.

Asst. Surgn. Khirode Chandra Ghosh is apptd. to do supy. duty at the Howrah Gen. Hosp.

Asst. Surgn. Bepin Behari Sen Gupta did supy. duty at the Med. Coll. Hosp., Calcutta, from the 18th to the 19th Feb. 1901.

N.-W. P. AND OUDH.

Dr. B. P. Ghadially, Asst. Chemical Exam., N.-W. P. and Oudh, to be on special duty in connection with the Bacteriological Laboratory, Agra.

Temp. Civil Asst. Surgn. Sarat Chandra Chakravarti, on reserve duty at Meerut, to plague inspn. duty at Ghazabad in the Meerut dist.

Civil Asst. Surgn. Bhola Nath, from plague duty in the Fyzabad dist. in connection with Daudashi Fair at Ajodhya, to reserve duty at Fyzabad.

Civil Asst. Surgn. Chanan Singh, from plague duty in the Fyzabad dist. in connection with Daudashi Fair at Ajodhya, to reserve duty at Fyzabad.

Civil Asst. Surgn. Chanan Singh, on reserve duty, Allahabad, to plague duty in the Fyzabad dist., in connection with the Daudashi Fair at Ajodhya.

Civil Asst. Surgn. Bhola Nath, from reserve duty at Lucknow, to plague duty in the Fyzabad dist. in connection with the Daudashi Fair at Ajodhya.

Temp. Civil Asst. Surgn. Narendro Nath Das, from plague duty in the Ballia dist., to reserve duty at Ballia.

Temp. Civil Asst. Surgn. Basant Kumar Mookerji, from the ch. of the Khari Sadr Dispy., to plague inspn. duty at Haldwani in the Naini Tal dist.

Civil Asst. Surgn. Chanan Singh, from reserve duty at Fyzabad, to plague duty in the Benares dist.

PUNJAB.

On being relieved of the ch. of the Sangla Dispy., Gujranwala Dist., Hosp. Asst. Arjan Das was apptd. to the ch. of the Upper Sutlej Inundation Canal Dispy., Lahore Dist., on the 14th Feb. 1901, relieving Hosp. Asst. Mumraiz Khan.

Hosp. Asst. Mumraiz Khan, Upper Sutlej Inundation Canal Dispy., Lahore Dist., to the Gujranwala Jail and Police Hosp., which he joined on the 27th Feb. 1901, relieving Hosp. Asst. Tulsai Ram, retired.

Asst. Surgn. Rai Sahib Bhagwan Das resumed ch. of the Gurdaspur Civil Hosp. on the 4th March 1901, relieving Asst. Surgn. Jagat Narain.

Asst. Surgn. Brij Nath resumed ch. of the Ripon Hosp., Simla, on the 3rd Jan. 1901.

Temp. Asst. Surgn. Ragonath Sahai Shaukara, doing gen. duty at Umballa, to Jullundur for gen. duty, which he joined on the 2nd March 1901.

Hosp. Asst. Damaundhi Khan resumed ch. of the Canal Dispy. at Rasul, Gujrat Dist., on the 26th Feb. 1901, relieving Hosp. Asst. Fakir Chand.

Hosp. Asst. Ranpat Rai, N.-W. Ry., Rawalpindi Sec., has obtained three months' privilege leave, and was relieved of his duties on the 20th Feb. 1901, by Hosp. Asst. Jagan Nath, doing gen. duty at Rawalpindi.

Hosp. Asst. Chamen Lal, doing gen. duty at Bannu, was apptd. to the temp. ch. of the Jee Khel Dispy., Bannu Dist., from the 24th Jan. 1901 to the 3rd Feb. 1901, during the absence of Hosp. Asst. Hemraj at Lahore for examn.

Hosp. Asst. Hemraj, Jee Khel Dispy., Bannu Dist., obtained

privilege leave from the 4th Feb. 1901 to the 25th Feb. 1901, during which period Hosp. Asst. Chaman Lal held ch. of the diapy.

Hosp. Asst. Chaman Lal did gen. duty at the Isa Khel Diapy, Sarun Dist., on the 2nd Feb. 1901.

Asst. Suran. Balmohand, doing gen. duty at Jhelum, to Muzaffargarh for gen. duty, which he joined on the 23rd Feb. 1901.

CENTRAL PROVINCES.

On relief from famine duty under the P. W. Dept., 3rd Class Hosp. Asst. Sanat Kumar Mitta was placed on gen. duty under the orders of the Civil Med. Off., Wardha.

Civil Hosp. Asst. Sanat Kumar Mitta, doing duty under the orders of the Civil Med. Off., Wardha, is transferred in the same capacity to Nagpur.

Civil Hosp. Asst. Kashinath Gopal is directed to do duty under the orders of the Civil Surgeon, Nagpur.

Civil Hosp. Asst. Kashinath Gopal, doing duty under the orders of the Civil Surgeon, Nagpur, is posted to the Khapa Branch Diapy, in the Nagpur Dist.

On relief by Civil Hosp. Asst. Kashinath Gopal of the ch. of the Khapa Branch Diapy, Civil Hosp. Asst. Ram Sahai is directed to do duty under the orders of the Civil Surgeon, Nagpur.

Civil Hosp. Asst. Anandram Nanda is directed to do duty under the orders of the Civil Surgeon, Raipur.

Civil Hosp. Asst. Brij Lal Parohit, doing duty under the orders of the Civil Surgeon, Nagpur, is deputed on plague duty at Katni, in the Jabalpur dist.

BURMA.

Hosp. Asst. Amin Chand, on return from leave, assumed ch. of his duties with the Mily. Police Detachment proceeding to Southern Shan States from Thari on the 11th Dec. 1900.

Hosp. Asst. Abdul Majid Khan, on transfer to Bassein-Henzada By., relinquished ch. at the General Hosp., Rangoon on the 18th Dec. 1900.

Hosp. Asst. Khoma Ram is hereby granted an extension of leave on med certificate for four days from the 18th to 21st Oct. 1900.

Mily. Hosp. Asst. K. Rungnankula made over, and Mily. Hosp. Asst. Thudinsaryanasaway Naidu assumed, ch. of additional duties at the Shore Diapy, Mandalay, on the 15th Jan. 1901.

Hosp. Asst. Amin Chand relinquished ch. of his duties with the Mily. Police Detachment at Loi Kaw, Southern Shan States, on the 31st Dec. 1900, and assumed ch. at the Police Hosp., Loi Kaw, Southern Shan States.

Hosp. Asst. Amin Chand assumed ch. of additional duties at the Civil Diapy, Loi Kaw, Southern Shan States, on the 31st Dec. 1900.

Hosp. Asst. N. Subbiah Pillay relinquished ch. at the Outpost Hosp., Talawgyi, Myitkyina dist., on the 1st Jan. 1901, and assumed ch. at the Police Hosp., Myitkyina, on the 6th Jan. 1901.

Hosp. Asst. Maung Lu Gale, on return from leave assumed ch. at the Lunatic Asylum, Rangoon, on the 24th Dec. 1900, as a supy.

Hosp. Asst. Shaik Abdul Aziz, on proceeding on one month's privilege leave, relinquished ch. at the Outpost Hosp., Talawgyi, Myitkyina dist., on the 13th Nov. 1900.

Hosp. Asst. Lal Chand assumed ch. at the Gen. Hosp., Mandalay, on the 14th Dec. 1900, as a supy.

Mily. Hosp. Asst. Sha Mahomed Ahad relinquished ch. of addnl. duties at the Civil Hosp., Bampton, Southern Shan States, on the 6th Oct. 1900.

Mily. Hosp. Asst. D. Kunaran assumed ch. of addnl. duties at the Civil Hosp., Bampton, Southern Shan States, on the 18th Oct. 1900.

Mily. Hosp. Asst. D. Kunaran made over, and Mily. Hosp. Asst. Sha Mahomed Ahad assumed, ch. of addnl. duties at the Civil Hosp., Bampton, Southern Shan States, on the 24th Nov. 1900.

Hosp. Asst. Ghulam Mustafa relinquished ch. of addnl. duties at the Police Hosp., Lashio, Northern Shan States, on the 9th Feb. 1901.

Hosp. Asst. E. G. Visuvanah relinquished ch. at the Outpost Hosp., Taungyan, Northern Shan States, on the 1st Feb. 1901, and assumed ch. at the Police Hosp., Lashio, Northern Shan States, on the 9th Feb. 1901.

Hosp. Asst. Maung Shwe Chaw relinquished ch. at the Civil Hosp., Myingun, Sagaing dist., on the 14th Feb. 1901,

and assumed ch. at the Civil Hosp., Sagaing, on the 15th Feb. 1901.

Hosp. Asst. Attar Ali Khan is granted one month and sixteen days' leave on medical certificate, from the 2nd Dec. 1900.

Hosp. Asst. Attar Ali Khan, on return from leave, assumed ch. at the Outpost Hosp., Thamanthi, Upper Chinindwin dist., on the 17th Jan. 1901.

Hosp. Asst. S. Muniratna Pillay relinquished ch. at the Civil Diapy, Yenangyaung, Magwe dist., on the 5th Dec. 1900, and assumed ch. at the Police Hosp., Magwe on the 6th Dec. 1900.

Hosp. Asst. Shaik Alla Rakha relinquished ch. of his duties with P. W. Dept. at Sagabin, Mandalay Canal Divn., on the 30th Jan. 1901, and assumed ch. at the Gen. Hosp., Mandalay, on the 31st Jan. 1901.

Hosp. Asst. Chowdhury Sharfuddin relinquished ch. at the Police Hosp., Lashio, Northern Shan States, on the 24th Jan. 1901, and assumed ch. at the Outpost Police Hosp., Taungyan, Northern Shan States, on the 1st Feb. 1901.

Hosp. Asst. Mahomed Haniff held ch. of Plague Inspn. duties, Rangoon, from the 11th Sept. to the 15th Nov. 1900.

Hosp. Asst. Mahomed Haniff relinquished ch. at the Outpost Police Hosp., Thamanthi, Upper Chinindwin dist., on the 17th Jan. 1901, and assumed ch. at the Outpost Police Hosp., Tamu, Upper Chinindwin dist., on the 23rd Jan. 1901.

Hosp. Asst. C. Umapathy Mudelliar relinquished ch. of supy. duties at the Gen. Hosp., Rangoon, on the 11th Sept. 1900 and assumed ch. of Plague Inspn. duties, Rangoon.

Hosp. Asst. M. Henry Peters held ch. of Plague Inspn. duties, Rangoon, from the 15th Nov. to the 26th Dec. 1900.

Hosp. Asst. Mon Mohun Datta relinquished ch. of his duties with the Sima escort on the 26th Dec. 1900, and assumed ch. at the Outpost Hosp., Sima, Myitkyina dist.

Hosp. Asst. Narayan Singh relinquished ch. at the Outpost Hosp., Sima, Myitkyina dist., on the 26th Dec. 1900, and assumed ch. of duties with the Sima escort column.

Hosp. Asst. Narayan Singh made over, and Hosp. Asst. Mon Mohun Datta assumed, ch. of addnl. duties at the Civil Hosp., Sima, Myitkyina dist., on the 26th Dec. 1900.

Hosp. Asst. Mon Mohun Datta relinquished ch. at the Outpost Hosp., Sima, Myitkyina dist., on the 2nd Feb. 1901, and assumed ch. of duties with the Sima escort on the same date.

Hosp. Asst. M. Narayan Singh relinquished ch. of his duties with the Sima escort column on the 2nd Feb. 1901, and assumed ch. at the Outpost Hosp., Sima, Myitkyina dist., on the same date.

Hosp. Asst. N. Subbiah Pillai, on proceeding on three months' leave on medical certificate, relinquished ch. at the Police Hosp., Myitkyina, on the 2nd Feb. 1901.

Hosp. Asst. K. Govindan relinquished ch. of duties with the Mandalay-Kunlon By. at Mayayo on the 25th Jan. 1901, and assumed ch. at the Police Hosp., Myitkyina, on the 3rd Feb. 1901.

Hosp. Asst. Naziruddin Ahmed relinquished ch. at the Police Hosp., Bhamo, on the 16th Jan. 1901, and assumed ch. at the Outpost Hosp., Alawpam, Bhamo dist., on the 20th Jan. 1901.

Hosp. Asst. Maung Tun E relinquished ch. of addnl. duties at the Police Hosp., Magwe, on the 6th Dec. 1900.

Hosp. Asst. U. Bama Nair relinquished ch. at the Police Hosp., Myitkyina, on the 13th Feb. 1901, and assumed ch. at the Outpost Hosp., Tallawgyi, Myitkyina dist., on the 15th Feb. 1901.

Hosp. Asst. Govind Ram, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 22nd Feb. 1901, as a supy.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

MARRIAGE.

NEWMAN-YOUNG.—At St. Luke's, Abbotabad, on March 31st, by the Rt. Rev. the Bishop of Lahore, assisted by the Rev. J. Moulson, Captain Ernest A. B. Newman, M.D., I.M.S., son of Wm. Newman, Esq., M.P., of Stamford, Lincolnshire, to Lilias, daughter of Colonel and Mrs. Young, I.M.S.

ORIGINAL ARTICLES.

A FEW WORDS OF ADVICE TO STUDENTS AND YOUNG PRACTITIONERS IN INDIA.

BY A. MITRA, BAI BAHADUR, L.R.C.P. & S., EDIN.,

Chief Medical Officer, Kashmir.

MEDICINE is a noble profession. This is a hackneyed phrase, but is nevertheless true, for is there anything nobler and more beneficent than that which aims at prevention of disease, alleviation of human suffering, and ministering to the wants of mankind at a time when it is most needed.

A lawyer-journalist compared law and medicine, and, as expected, tried to prove his own profession superior. So perhaps, when I do the same with my profession, he might say "that was expected." But if he takes the opinion of sages of all ages, he will see that his opinion is not accepted universally.

Law is a learned profession, requiring a clear head, and a shrewd insight into human nature. It deals with justice, which, as long as men lives in communities, is no doubt as important as health. Medicine, on the other hand, requires a knowledge of the laws of nature and a power to apply them to the best benefit of mankind. Some say that medicine is an uncertain science; but all attempts to deal with nature must be uncertain. But is law always exact? Have not innocent men been hanged, or rightful heirs deposed?

In ancient India, medicine was held in such high esteem that the science and art of healing formed a portion of the sacred Vedas, and was believed to be revealed from God. Only the rishis or saints learned and taught medicine.

Most of us follow the profession of medicine for worldly gain; but one who conscientiously does his duty, does true good to humanity, even though he is paid for it. A sense of duty should not be subordinated to sordid, selfish motives.

Be that as it may, medicine, noble as she is, will have none but the noble to serve her. A medical man cannot truly fulfil his duties unless he has nobleness of purpose and is noble in action. He must rise high above the ordinary. He must be honest, true, charitable, gentle, sympathetic, self-sacrificing and righteous.

Those who wish to enter the medical profession should have a liberal preliminary education in literature, arts, science, mathematics and classics. A good preliminary education always stands in good stead in the after-life of a medical man, and a well educated man always scores more than his less educated brother in the profession.

Then you require a strong physique. Those who have it not, had better seek for a livelihood elsewhere.

From the day a student enters the threshold of his college, he must pledge himself as a loyal and earnest votary of science. He cannot afford to lose a day. Every day he hears and sees things which will be useful in his after-life. One fact not learnt may mean loss of one human life in his hands. In the college read your text-books thoroughly, attend lectures diligently, take notes carefully, and observe facts intelligently.

In studying anatomy, dissect your parts carefully; but do not neglect the book. The student frequently tries to finish his "parts," but a "part" cannot be finished till everything in it is thoroughly mastered. If you neglect anatomy, you can never be a good physician or surgeon. A student who learns to dissect well lays the foundation of a good hand in surgery.

To learn physiology thoroughly, you must be familiar with the elements of physics, and have a fair knowledge of chemistry. Without this you will hardly be able to comprehend the reasonings or the chemical application of modern physiology. You must, for instance, be able to answer such a question as this—How much work does the heart perform at each systole if the right ventricle expels the same quantity of blood against two-fifths as great pressure?

Answer $W = [13.6 \times 120 \times 14]$ and $[13.6 \times 120 \times \frac{2 \times 14}{5}]$ or, $\frac{2}{5}$ of work done by left ventricle alone = 31.937 gramme centimetres.

In the practical physiology class, use your microscope well, prepare and mount every specimen of tissue. You thus lay the foundation of a sound knowledge of pathology.

Do not neglect chemistry. In after-life you will find it most useful, not only for medico-legal work, but in prescriptions. Physiological chemistry should be studied carefully.

Materia medica, pharmacology and the action of drugs should be well studied and remembered. The action of important drugs, such as digitalis, strychnine, should be practically by experiments in the practical pharmacology studied class. You will then learn how to ascertain the actions of drugs, and if you have leisure in after-life, it may throw much light on the action of valuable indigenous drugs. Students are apt to neglect pharmacy, but if you do, you will regret it. A medical man who cannot make a good pill, or who cannot properly tie a proper knot on a bottle containing viscera, has surely deficient education.

Gradually you begin to study diseases in the hospital ward. From the study of the dead, you pass on to the study of the living. Some junior students, when they begin hospital work, are apt to forget their work, and

assuming the dignified air of a hospital staff, are satisfied with promenading lordly in the portico of the hospital with a stethoscope in their hand. In the hospital you learn to recognise diseases and how to treat them. Here you have opportunities to train yourself and how to conduct yourself with a patient. Here you plant the foundations of your future career. Upon your thoroughness will depend your success. You must treat the patient with kindness and consideration. Make use of every minute you are in the hospital. Learn from the visiting staff, and learn from the house physicians and surgeons. Here you must practise how to bandage a limb properly; how to set up a fracture. If you are clumsy in these, you can never succeed in surgery. Learn the details of aseptic surgery, and practise them carefully. In some hospitals there is a practice of employing medical students "on duty," which means they have to admit a patient, write his bed-head ticket, &c. This, I think, is unfair to the students. Their time is wasted at the expense of real and sound practical work in which they should be trained. Clinical clerks and dressers should have charge of some patients, whose history they should write as directed in the book on clinical medicine, and which cases they should be in entire charge of. In the hospital wards the student should learn to observe clinical facts, and from them the various means for diagnosis of disease, together with the use of instruments, such as the stethoscope, sphygmograph, ophthalmoscope, etc. Here, also, surgical work should be practised, such as setting a fracture, reducing a dislocation, and passing a catheter. In fact, the hospital is the workshop in which the healing art is learnt. Any opportunity thrown away at this stage of the student's life is lost forever, and will be a matter of deep regret throughout life.

Some students think lectures as useless, because they find they can learn the subjects just as well from text-books. There is some truth in this, unless the lecturer has a personality of his own, and unless he is able to rouse his pupils' enthusiasm and interest, and teaches from the fulness of his personal knowledge, and illustrates from his practical knowledge and experience. A learned and most esteemed physician once used to lecture to us on *materia medica*. He never lifted his eyes from his manuscripts. A few diligent students, with a PITMAN'S rapidity, took notes; but the majority were reposed in sweet slumber after the day's work. The college bell stopped the lecturer, and automatically the audience rose from their nap and left the gallery. This lecturer was not in touch with his audience, and what he lectured on was better said in any ordinary text-book. Yet there are lecturers of different types, from whose lectures you learn facts more easily than from a text-book, who send pupils from the lecture-room to hospital wards with their interest aroused and with eagerness to observe and study cases practically.

When a student, your attention should be given to all subjects equally. When you come out of the college, you must come out as a good general practitioner, and

in these days a general practitioner has to know many things. He must know how to prescribe spectacles and measure errors of refraction, to examine blood for malarial parasites or leucocytosis, to thoroughly understand practical bacteriology; he must be able to stop a tooth decently, or to diagnose diseases of the ear and throat, to apply a pessary, as well as to deliver by forceps, to operate in a case of strangulated hernia, or open the abdomen in a case of intussusception, to recognize symptoms and *post-mortem* signs of arsenical poisoning, to organize plague or cholera camps and the different means of public and private disinfection. With varied knowledge, and all thorough and not incomplete and hazy, the practitioner must enter his profession.

I do not agree with those who say that prize-winners in college do not turn out to be good practical men in after-life. There may be exceptions both ways; but I certainly consider prize-winners more likely to prove successful practitioners than others.

There are no examinations in which candidates are more often "plucked" than in the medical. The oral examination proves disastrous to students who have the disadvantage of being slow, shy, or not quick-witted. But a student who fails in spite of his best efforts, and yet does not give up, but pursues his purpose with renewed zeal, is more to be envied than one who is fortunate enough to come through the ordeal brilliantly.

But during your student days do not overwork yourself. I have known many a bright medical student entering the portals of life with enfeebled health, and all his energy exhausted by work without exercise, and, as expected, having an unsuccessful and miserable career afterwards. Regular exercise should be taken, and games, such as cricket and tennis, are especially useful to medical students, developing muscles of the arms and increasing such qualities as quickness, deliberation, judgment and control of temper. For those who like it, carpentry is a useful occupation in leisure hours. I advise all medical students to undergo an apprenticeship in a carpenter's workshop for a few months. The practise will be very useful in your surgery, especially in bone surgery.

When you come out into the world as a fall-blown "doctor," do not think that your education is complete, and that you can then take life easy, and devote all your attention towards earning money. Your education really begins after you leave the college portals. Enter the profession as a humble votary of science with the consciousness that you have yet to learn, and that, too, every moment in your life. You will meet with disappointments in your diagnosis, in your practise of medicine and surgery, and in your treatment. Every disappointment will be a lesson and guide for the future. Do not consider your elders in the profession as "old fools," and that you come

with a new light. Be respectful to experienced men of your profession. If you find that your consulting physician has made a mistake, you may be sure that you may do as badly, if not a worse one, in your after-life. Do not speak ill of your professional brethren, or criticise their prescriptions before laymen.

Do not think that Dr. So-and-So has been successful by luck and has no merits. Learn to recognize merit, and give praise where praise is due. Your rise in the profession depends on your knowledge, ability, perseverance and thoroughness of work, and not in tactics or in blowing your own trumpet. Strictly observe the code of ethics, which commonsense and good decorum have established between the members of the profession. In this, as in everything else, do as you would be done by.

Advertising oneself in newspapers, or by placards and handbills, should never be done. We are not traders, but members of an honourable profession.

Paragraphs are sometimes seen in newspapers—Dr. "So-and-So has just returned from such and such a place after successfully treating Rajah so-and-so, or Dr. So-and-So has cured so-and-so, who was considered incurable by everybody in the faculty he consulted."

Do not be a party in the publication of such laudations. They can never do you good, but, on the other hand, all right-thinking men consider them what is vulgarly called "humbug." Whatever work you might have done, the consciousness of having done your duty should be your reward; but depend upon it, good work, like truth, seldom fails to come to light.

The habit of writing, recording cases, and one's clinical experience, is, however, a good one. One should not write if he has only to say that he has done 500 cases of cataract with only five failures; but write your experiences in cataract operation, the difficulties you have met, the accidents which happened, and your opinion on the several points connected with the operation, and any light you may throw on the subject.

There is a practice now-a-days among some medical men to prescribe recent and not much known drugs in preference to old and tried drugs. When this is done to exhibit one's knowledge, it is very objectionable. I have heard a patient say, "Oh, Dr. So-and-So's prescriptions could not be dispensed by any chemist." Xeroform is prescribed where iodoform is required. Lactophenine where phenacetin would do. Seng when a bitter digestive would be preferable, and so on. I have more veneration for the simple good old prescriptions of experienced physicians than copies of recent prescriptions taken from medical journals consisting of drugs of which the

prescriber has no personal knowledge and experience, whatever. By all means know all about the latest novelties and additions in our therapeutic resources; but do not be guided by the flourish of advertisements, and do not think that by suggesting a new name you have scored a success over your less unostentatious rival in practice. I was present in a consultation on a phthisis case. The attendant physician was an excellent man, and was treating his patient excellently. We had nothing to suggest, except, perhaps, a few details in the treatment and diet, and hygienic measures. A colleague burst out and said, so-and-so's mixture should be given. I asked him what it contained. He collapsed!

There is, however, another class of practitioners who make fun of and ridicule all new discoveries or attempts towards advance of science. They would run down bacteriology, HAFKINE'S inoculation, plasmidium theory of malaria, etc., etc. While it is not expected that one would place implicit trust on all the latest theories advanced, but a truly scientific medical man must keep his eyes and ears open, know all that is said, and ready to profit by any light thrown by experience and experiment. Try to help, if you can, in the advance of scientific knowledge; but do not retard it. A layman is often heard to say, "Dr. A. experiments on his patients;" while again "Dr. B. is accused of being very conservative in his treatment." You cannot much err if, in your early life in the profession, you follow the teachings of recognised heads of the profession. But remember that experience should always supersede new experiment, and theories must be subordinated to the teachings of the wards and the dead-house.

It is to be hoped that post-graduate lectures and institutions, such as the Polyclinic of London, will be established in India, and that they will be largely attended by medical practitioners. The large college hospitals in India at least should "have, as an essential part of their working mechanism, a clinical laboratory, where the complex pathological problems of each case in the wards could be fully analysed by strictly scientific methods and with the help of all necessary apparatus and instruments of precision."

I also think it should be arranged to have a class for practitioners in such places in India where there are opportunities of witnessing special operations such as litholapaxy, cataract, &c. There are places in India where daily a dozen, if not more, of these operations could be done. If expert operators demonstrate these operations, practitioners from all parts of India could come and get the special training required. Nothing is more consistent with the vastness and nobility of the medical sciences than to see grey-headed practitioners of a quarter of a century's standing sitting together with young students in their teens and listening to the teachings of science and experience.

While attending an annual meeting of the British Medical Association, nothing impressed me more than

to see the genuine respect which practitioners in England paid to their more well-known brethren in the profession. In the meeting hall, the entrance of a well-known physician and surgeon was hailed with an outburst of cheers and enthusiasm. No jealous eye, no whispered maligning. A nation in general, and a profession in particular, cannot rise until it learns to praise its great men.

As science is advancing, the necessity is arising of establishing practical laboratories in connection with the different colleges where they do not exist, and these should, I think, be opened to general practitioners (of course on payment of a fee). A first-rate laboratory for the study of the problems connected with forensic medicine and toxicology, a laboratory for the study of tropical diseases, such as the Yates-Thompson Laboratory of Liverpool, and also a pharmacological laboratory for experiments and study of indigenous drugs. It is all very well for outsiders to say, "Oh, there is hardly any original work done in India;" but if opportunities are given, and then they are not availed of, the blame will lie on our shoulders. Medical men have not yet discovered a cheap substitute of food for themselves and their families, and cannot, therefore, be expected to do research work for the good of humanity or love of their profession with famished stomachs. All the large laboratories in Europe and America have handsome research endowments provided by the rich. The noble-minded TATA of Bombay has no doubt given a start, but men in other provinces of India should keep the ball rolling and follow his example.

As long as the public in a country do not recognize their relationship with medical science and appreciate the good which arises from it, and as long as they adopt a *laissez faire* policy towards science, so long it will behave like an exotic plant, as it is doing now, stunted in its growth, unable to draw its sap from native soil and thrive.

In these research laboratories everybody will not make a startling discovery, but those who work in them will gain for themselves a scientific habit of mind. These bands of workers will no doubt be ultimately most useful members of the profession.

Select proper books and read them thoroughly. Try to remember always what you read. It is a very bad practice to read desultorily and skip from one page to another, and from one book to another. I give below a list of books which I recommend:—

For Students:—Gray's Anatomy; Kirke's Physiology by Halliburton; Halliburton's Chemical Physiology; Schaffer's Practical Histology; Schaffer's Essentials of Histology; Luff's Chemistry; Luff's Forensic Medicine; Daniell's Physics; Bruce's Materia Medica, or Hale White's; Osler's Medicine; Treves' Surgical Anatomy; Green's Pathology; Ross and Carless' Surgery; Jacobson's Operations in Surgery; Galabin's Midwifery; Herman's Diseases

of Women; Swanzy's Diseases of the Eye; Whitelegge's Hygiene.

Every practitioner should add to his knowledge by reading the following books:—

Brunton's Materia Medica and Pharmacology; Balfour's Diseases of the Heart; Bruce's Principles of Treatment; Fagge's System of Medicine; Watson's Medicine; Barry's Clinical Medicine; Manson's Tropical Diseases; Powell's Diseases of the Lungs; Gower's Treatise on Nosology; Hilton on Rest and Pain; Foster's Physiology; Ophayne and Burghard's Surgical Treatment; Fuch's Ophthalmology; Lookwood's Aseptic Surgery; Treves and Tillbury's System of Surgery; Crookehanks or Muir and Ritchie's Bacteriology; Ashby and Knight's Diseases of Children; McBride's Diseases of the Throat, Nose and Ear.

I cannot conclude without quoting a few wise sayings of the ancient Hindu physicians:—

SUSRUTA says:—"The surgeon and physician should keep his nails and beard short, and his body pure." (Does not knowledge of antiseptic surgery teach this now?)

CHARAKA says:—"The physician should always be dignified in his deportment, correct in his manners and habits, gentle and kind, amiable, cheerful, and collected. His language should be mild, candid, and encouraging, rather like that of a friend than an acquaintance, and he should be always ready to assist the sick. His heart should be pure and charitable, and he should carefully follow the instructions of his guru, and of his predecessors. Such a physician should possess a character for strict veracity, be of calm temper, and of the greatest sobriety and chastity. He should be a man of sense and benevolence, and his constant thought should be how he is to do good. A person may be afraid of his father and mother, friends and master, but not of his physician; so the physician should be more kind and considerate to the sick than a father, a mother, a friend, or a master. To these qualities should be added that of affection for learned friends and the constant habit of visiting the sick, and seeing them treated by experienced persons. Without such a combination of qualities, knowledge will retard rather than advance his progress. He should know the causes and varieties of disease, and the means of preventing and curing them, and have the reputation of accomplishing cures quickly.

Without such a knowledge of books he will be confused, like a soldier afraid in the time of battle, will be considered a great sinner, and should be capitally punished by the Rajah. On the other hand, a want of practical knowledge will impede his advancement, and his senses will be bewildered when called on to treat acute diseases. Such a physician will not be esteemed by the great, as he cannot practice with success when only instructed in half his duty. Such a person is the murderer of his species, and the medicine prescribed by him may be compared to poison or lightning—such ignorance prevents all the good effects of remedies. As the two wheels of a

chariot, or the two wings of a bird, assist in their progress, so will the knowledge of the Shastras, and of practice, lead the physician to proceed with safety and success in the treatment of the diseased; but should the physician want either of these essential qualifications, his progress will be impeded, as one wing or one wheel will impede the progress of the bird, or the chariot. It is the combination of both these qualifications which is required, when medicines become like the water of immortality. Such a physician, if he is to acquire celebrity, must still daily endeavour to improve his mind by an attentive perusal of scientific books; and if he does not gain money, after he has been taught the Shastras, it is his own fault.

When such a vaidya (knowledge) is spoken to by a patient in a peevish or hasty manner, he will remain calm, mild, and courageous, and cherish a cheerful hope of being able to save the sufferer's life. The practitioner should avoid frivolous or improper language, particularly with females; he should not sit down upon the same bed with them, and the only present he should receive from them is food. He should be frank, communicative, impartial, and liberal, yet ever rigid in exacting an adherence to whatever regimen or rules he may think it necessary to enjoin. Should death occur under the care of such an earthly saint, it can only be considered as his inevitable fate, and not the consequence of presumptuous ignorance."

PSYCHOSES FOLLOWING PELVI-ABDOMINAL OPERATIONS.

BY J. HALLIDAY CROOM, M.D., F.R.C.S., & F.R.C.P., EDIN.,
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THERE is no novelty whatever in discussing the question of mental disturbances succeeding operations of all kinds. There is scarcely any form of operation which, in persons so predisposed, may not lead to a total upset in the nervous system, and bring on psychical changes more or less marked. Such aberrations occur after operations in general surgery, even after such a minor accident as a simple fracture. After the administration of anæsthetics, delirious mania has followed, and in some cases weak-mindedness has lasted for a very variable period. Abdominal and pelvic surgery is no exception, of which the cases to which I am about to refer are sufficient indication. The normal functions of the uterus and ovaries are themselves not unassociated with mental aberrations; alteration in the temper, for instance, or actual hallucinations, disordered appetites of all kinds, are accompaniments both of menstruation and pregnancy. The same is the case with the menopause. That of course is a natural process, and yet is only too frequently associated with all sorts of forms of nervous and mental disturbance. Perhaps of the three conditions—menstruation, pregnancy, and the menopause—the menopause is more frequently associated with curious mental phenomena than any other period of a woman's life. Such aberrations

are associated with the normal utero-ovarian conditions.

Every one is acquainted with the frequency of insanity occurring after ordinary labour, of which the asylum records bear ample testimony; but it must be admitted that puerperal insanity generally occurs in those in which the patient's record has not been a clean one, where there has been insanity or mental weakness, either in the case of the patient herself previously, or in her parents, or in the collateral branches of the family. Of course I am not concerned with the question as to the advisability or propriety of operating upon mentally diseased women, or women with neurotic inheritance. The prognosis in such cases is serious. The tendency to rouse up morbid mental tendencies in such people by operations is of course, very serious, and therefore in such women operations of convenience, which are not necessary for the prolongations of life, ought to be undertaken very guardedly indeed. Before going further, let me give an illustration of a case of mental disturbance, associated with menstruation, in an otherwise healthy woman with a good history, unassociated with any operative interference whatever.

Case I.—The patient was a young unmarried girl, *ætat* 26, and the complaint was that she had for long exhibited symptoms of violent dislike to her relatives, especially her brothers and sisters, during the five days that her catamenia lasted. She was morose during the whole period, declined to speak to any member of the family, and was violently insulting when spoken to; but the day after her catamenia ceased, she was bright, cheerful, and well, and willing to enjoy all the pleasures of life. This had lasted for ten years. She has been on more than one occasion examined carefully under chloroform, and no morbid condition whatever could be found in the uterus and adnexa. She had no dysmenorrhœa. Her sisters are all healthy and well, and there is, so far as could be ascertained, no history of any insanity in the family. This case seems to be one in which there must be some peculiar idiosyncrasy in the patient, which is associated with nothing apparently abnormal in the pelvis, with no displacement, neoplasm, or lesion in either the uterus or its appendages. But the interesting point of the case is that she married two years ago, and shortly after marriage she became pregnant, and was delivered at full time, but during the whole period of her pregnancy she had exhibited symptoms similar to those she showed during menstruation, but shortly after delivery she became perfectly well, and has remained well since, though menstruating regularly.

It is unnecessary here to refer to mental conditions during normal pregnancy; they are very well known and recognised, and one would pass from these, which might well be called "normal neuroses," to those which are associated with pelvic or abdominal operations.

The following case is interesting, inasmuch as one cannot imagine any class of case that is so disappointing to an operator as this, in which the whole advantage and benefit of the operation is destroyed and misunderstood on account of this mental distress.

Case II.—A young woman, a widow, *ætat* 32, was admitted into a nursing-home—under my charge—suffering from villous endometritis, with profuse hæmorrhage, not only at her menstrual periods, but intermenstrually as well. On examination, the uterus was found much enlarged and easily hæmorrhagic. The obvious treatment was to perform curettage. This was accordingly done, and the patient made an excellent recovery. Some weeks afterwards she took an inordinate dislike to her own child, threatened to murder it, and she is now an inmate of an asylum.

Here again is a distinctly disappointing result. In this case the diagnosis was obvious, and the cure absolutely complete, and yet the case ended more disastrously than if the patient had died of acute sepsis. Such a case impresses one with the importance of regarding in their estimate of the danger of an operation the fact that it may be followed by mental changes as serious as the one just referred to.

The following is another case of mental trouble consequent upon a minor gynecological operation:—

Case III.—The patient in this instance, a young lady, *ætat* 25, was brought to me reduced to a state of extreme *anæmia*, suffering from constant and profuse uterine hæmorrhage dependent upon the presence of a uterine polypus. This is not the place to discuss the nature of the operation necessary, but it will be allowed that the removal of a tumour such as this, about the size of a hen's egg, involves no very great shock to the system. Such operations are performed every day, and are, so far as either immediate or remote results are concerned, entirely satisfactory. Of course the hæmorrhage ceases at once, and the only possible risk is septic absorption, and this can be easily prevented. This lady made an extremely good recovery, and left the home perfectly well. There has been no return of the hæmorrhage since. Unfortunately, two months after the operation, she harboured the delusion that she had been delivered of a child, and that she had become, as a result, an outcast, and she is now the inmate of an asylum.

This is a result which no one can discount, and cases such as this, where the patient was reduced to a state of profound *anæmia*, and where the physical cure was an absolutely complete one, are, it must be admitted, a disappointment. So far as one could discover, this girl had no family history of insanity whatever, either in her immediate family or among her relatives, and this is the point one would emphasise. It may be readily understood how the extraction of a tooth or the administration of chloroform would upset the nervous system of a person pronouncedly so predisposed; but this is a case where there was no tendency to insanity in the family whatever. I repeat that this fact seems to be a very serious addition to one's views as to the prognosis of any case. As has just been said, all are prepared to discount accidents in insane families, but one has no right to discount—one is not expected to discount—such accidents as these in women who have a perfectly clear mental history. It might be possible to account for this case by the fact that the girl was reduced to profound *anæmia*. She was exsanguine in the extreme, and therefore it is possible

that an operation undertaken under such circumstances might have produced a comparatively great shock; but then the symptoms did not come on for at least two months after the operation was performed, and by that time the patient had become physically stronger in every way. At the same time, when one regards the curious mental and physical phenomena that are from time to time seen in conditions—perfectly normal conditions—such as menstruation, pregnancy, lactation, and menopause, it is not a matter for very great surprise that when, in addition, operative interference is had recourse to, the effect on the nervous system should be pronounced, as in the case just recorded. It might be supposed that the insanity occurring two months after the operation was neither in consequence of it nor related to it, but the nature of her delusion is a sufficient answer to this objection.

The influence which the ovaries and uterus exert over the mind has long been discussed in the abstract, and on that account one is all the more anxious to record concrete examples illustrative of these conditions, in order that others may be prepared for them as they occur. It is not for me to inquire into why this takes place, nor to go into any erudite examination of the relation between mind and matter; it is enough to point out that such accidents are possible, and at the same time, unfortunately, utterly and absolutely unpreventible.

Before leaving the subject of minor gynecology, one other case might be quoted.

Case IV.—The patient, a young woman of an exceedingly healthy family, suffered from intense spasmodic dysmenorrhœa, which had resisted all the ordinary drugs, and which was so severe as to withdraw the girl from active duties every month. On one occasion her suffering was so severe that she had to have chloroform administered. After due consultation with her friends, the cervix was dilated, and for the two succeeding months she was quite free from her dysmenorrhœa; but at the third month it returned, and she became violently maniacal, and her mental equilibrium has been very much upset ever since, so much so that her marriage has had to be abandoned.

It is unnecessary to multiply cases of mental changes following minor operations, but one could mention others, though fortunately less pronounced and attended with happier results than those just cited. Though I have not myself seen any cases of insanity after perineal repair, yet KELLY records six cases of insanity after perineal operations, and one of these died in acute mania.

When one comes to pass from minor to major operations, of course the field is wider, and in the following example it will be found that mental and fatal conditions are by no means unassociated with the major operations in gynecology. The case is as follows:—

Case V.—The patient was a married woman, apparently in robust health, with a simple ovarian tumour. There were no adhesions and no difficulty whatever in the operation, which lasted ten minutes. It went off without a hitch of any description, and the prognosis was therefore perfectly favourable. To show how careful one ought to be, I might mention that,

after the operation was over, the husband asked if there was any necessity for him to remain in Edinburgh. The answer was in the negative; he was told that his wife was perfectly well, and there was no likelihood of any hitch occurring, and he left for a distant part of the country. The following day the patient became acutely maniacal, had to be held down in bed, and died of exhaustion in four days.

Of course it will probably be said that this was the mania or the delirium of sepsis, but, as a matter of fact, the autopsy showed not a trace of sepsis anywhere. The patient had no family history of insanity, and was apparently in excellent health. Here, again, one does not wish to enter upon any abstruse investigation as to how this calamity occurred, but the fact remains that the patient died in acute mania four days after the simplest possible operation. Reference might here be made to the excellent paper by KELLY on this subject, in which he records eight cases out of something over 2,000 abdominal sections. The record from which these cases are taken shows five cases of insanity in over a thousand sections. Of KELLY's eight cases, five recovered completely, two remained insane, and one committed suicide. My record obviously is not so satisfactory.

The case just referred to is one of acute mania, following a simple operation. Take another case:—

Case VI.—The patient had a rather troublesome ovariectomy performed. There were numerous adhesions, but the case, though somewhat tedious, was nothing unusual. She made an excellent recovery, and remained absolutely well for five days. On the morning of the seventh day, when the stitches were removed, the wound had completely healed, except for one small suppurating stitch hole. The same evening she became excited. The next day she was still more so, and a day later she became acutely maniacal, and remained so for a week, when she had to be removed from the home. She died shortly afterwards.

Case VII.—Perhaps one of the most painful cases was that of a patient upon whom I performed hysterectomy for a large rapidly growing fibroid. It is unnecessary to mention the operative details; suffice it to say that the stump was treated intraperitoneally, and dropped back into the abdomen. The tumour was a large one, involving a wound nearly from the ensiform cartilage to the pubis. Afterwards she was apparently well, without any notable rise of pulse or temperature. On the night of the seventh day, after the stitches had been removed, while the nurse had left the patient just for a minute, the patient jumped out of bed, tore off the dressing, and before she could be brought back to bed the strapping had given way. This allowed the wound to re-open at its lower margin, and a small portion of the gut escaped. I saw her very shortly afterwards, and found her in a state of violent excitement. It was with difficulty that she was anaesthetised. I was fortunately able to deal with the temporary hernia, and she recovered from the operation, but only to become an inmate of an asylum, where she still is.

These cases all illustrate mental disturbances occurring immediately after an operation.

Case VIII.—The next one is a case of melancholia, which supervened six months after the performance of a simple ovariectomy. The case was a perfectly easy one, without any complications. The patient made an excellent recovery, but six months afterwards began to show symptoms of dislike to her friends, along with evidences of suspicion and melancholy, and she is now, and has been for some time, confined in an asylum.

The interesting feature of all these cases is that all these mental disturbances occurred after operations which were uncomplicated and simple, and in cases where the operation, *per se*, was entirely successful, and further, that all occurred in women who, so far as could be traced, had no hereditary tendency whatever in that direction. There is little reason to doubt that septic infection has a great deal to do in the production of insanity after operations.

Of course, in looking for causes that lead to these mental disturbances after operation, the field is very wide.

Undoubtedly the first factor is the hereditary one; the second possibility is sepsis; and from these two, which are probably the main causes of post-operative insanity, one can look to a large group occurring under loss of blood, defective action of the kidneys, and so forth.

Again, one must remember that in removing the ovaries for disease (or from other causes), one induces the climacteric, and of course in so doing one places the woman in all the possible risks of climacteric trouble. It seems probable that the essential pre-requisite for the development of post-operative insanity must be in all cases a neurotic organisation, predisposed, from either hereditary taint or acquired nervous weakness (and instability), to take on diseased (or perverted) action, in consequence of any active disturbing influence.

Naturally, all are unwilling to admit that sepsis is the cause of death in operations, for now we know that a septic death means careless surgery, and therefore some are apt to attribute deaths and misfortunes to other causes than the real one. For example, death is said to be due to shock, defective kidney action, hæmorrhage, exhaustion from suffering, the depressing effect of anaesthetics, vomiting—to anything rather than to actual sepsis. Still, in the cases here referred to, with the exception of the hysterectomy, the possibilities of sepsis were out of the question altogether, at least of any sepsis that showed itself by any other way than by the insanity.

Alienists tell us that there does not exist a psychosis which may be called post-operative insanity. With the exception of certain operations on the head, thyroidectomy, etc., there are no operative procedures which can be said to be *solidly* productive of mental troubles, and the main rôle in the production of post-operative disturbances is played by a predisposition, acquired or hereditary.

I think the remarkable thing, however, is that it has not been shown that insanity is more common after operations on the genital organs than after operations on any other organs. When one recognises the frequency with which mental troubles are apparently associated

with the normal occurrence of changes—such as puberty, menstruation, pregnancy, and the menopause—it may be considered almost remarkable that women escape from these disorders as easily as they do.

One does not wish here and now to enter upon the great subject of operations undertaken in insane women, with a view to effecting a cure of the mental disease by operative treatment of the genital organs. That is a field in which there is a good deal to be said; but it seems to me that under no circumstances ought any insane woman to be operated upon, unless for some distinct condition which is compromising life. The cases in which the ovaries have been removed, and other operation performed, with a view to influencing insane or hysterical conditions, are many, and I fear the results are exceedingly discouraging. One's own experience of hystero-epilepsy is comparatively limited. I have operated on only one case where the symptoms were extremely marked, and after the removal of the ovaries, the catamenia ceased, and the hystero-epileptic symptoms disappeared; but after some years the patient was lost sight of, and therefore I cannot tell whether or not the cure was absolutely complete. It is quite certain that after any degenerative process have occurred in the brain cells, it is absolutely useless to look for any mental cure by any form of operations on the genital organs.

The relation of gynecology to psychiatry has been much discussed in late years, and I think the general consensus of opinion, gathered from alienists and neurologists alike, is that, while it has a place amongst the insane just as among the sane for the relief of physical distress, yet, as a great curative method in the treatment of insanity, it plays a comparatively small and unimportant part.

METHODS OF TEACHING HYGIENE.

By VICTOR C. VAUGHAN, M.D.,

ANN ARBOR, MICH.,

Professor of Hygiene in the University of Michigan; late Major and Division Surgeon, U. S. A.

In order that this theme may be intelligently discussed, it may be well, first of all, to come to a understanding of the meaning to be attached to the word hygiene, and, furthermore, there will be less likelihood of confusion if we decide to whom this subject is to be taught, and what knowledge of collateral branches the student seeking information is supposed to have had. Within recent years, hygiene has frequently been confounded with bacteriology. It must be admitted that the latter has contributed richly to the former, but the two are by no means identical. By way of introduction I will therefore give a definition of hygiene as I understand it, and as I have attempted to teach it.

Medicine, in its broadest and best meaning as a science, consists of those facts learned by man by observation and experimentation, which can be utilised in the preservation of health or in the cure of disease—restoration to health. As thus defined, medicine is both preventive and curative. Those facts that are of

service in the preservation of health constitute the science of hygiene, while those that are employed in the restoration of health make up the science of medicine in its restricted sense. Since health is a relative and not a sharply defined state of being, the science of hygiene may embrace a discussion of all conditions that affect for good or ill the physical man. It follows that the subject is a boundless one, and that no man can hope to teach it exhaustively. The best that the teacher of this subject can do is to select those lines of instruction that are likely to prove of most value to his students. It is probable that no two instructors would agree in detail concerning the topics of greatest importance. For the ensuing year my schedule of lectures in hygiene will be substantially as follows:—

1. PERSONAL HYGIENE.

(a) *Foods*.—Definition of a food; food principles; the nutritive value of foods; the economical values; discussion of different foods; the preservation of foods; food-poisoning; food adulteration; food suitable for different climates; dietaries for invalids; cooking; beverages and condiments.

(b) *Clothing*.—Fibres employed and their properties; importance of texture; importance of color; selection of clothing for different climates and seasons, so-called dress reforms.

(c) *Baths*.—Bathing for cleanliness; bathing for pleasure; resuscitation of the drowned; medicinal baths.

(d) *Exercise*.—The necessity for exercise; pulmonary and muscular respiration. Out-door exercise: walking, riding, rowing, wheeling, games, etc. In-door exercise: at home, in gymnasium.

2. HYGIENE OF THE HOME.

(a) *The house*.—Selection of site; construction of house; arrangement of rooms; heating and ventilation; furnishings.

3. SCHOOL HYGIENE.

(a) *The school house*.—Site, construction, heating, ventilation, lighting, desks, blackboards, playgrounds.

(b) *Mental hygiene*.—The physical basis of education; system in study; hours for study; conditions necessary for study; rest and recreation.

4. MUNICIPAL HYGIENE.

(a) *Water-supply*.—Sources, chemical and bacteriologic examination; purification.

(b) *Sewage disposal*.—Systems; plumbing; pollution of streams; sewage farms; sewage purification.

(c) *Garbage disposal*.—Street cleaning; by burning; by dumping into water.

(d) *Tenement houses*.—Construction; overcrowding; isolation when infectious diseases appear.

(e) *The sanitation of municipal and other hospitals.*

(f) *Municipal laboratories*.—Bacteriologic examinations; chemical and microscopic analysis.

(g) *Municipal boards of health and health officers*.—Duties; notification of infectious diseases; placarding infecting houses; disinfection; vaccination; food inspection; abatement of nuisances.

5. RURAL HYGIENE.

- (a) The drainage of wet lands.
- (b) The farmhouse and its surroundings.

6. STATE HYGIENE.

- (a) State boards of health.
- (b) State laboratories of hygiene.
- (c) State quarantine.
- (d) Interstate notification of infectious diseases.

7. NATIONAL HYGIENE.

- (a) Inspection of immigrants.
- (b) Quarantine and disinfection.
- (c) The public health duties of the Marine Hospital Service.

8. INDUSTRIAL HYGIENE.

- (a) Prevention of the diseases and accidents incident to occupation.

9. THE HYGIENE OF TRANSPORTATION.

- (a) The heating, ventilation, and disinfection of railroads.
- (b) The sanitary care of street cars, cabs, etc.
- (c) The sanitation of boats.

10. MILITARY HYGIENE.

- (a) Examination of recruits.
- (b) Sanitation of camps.
- (c) The soldier's clothing.
- (d) The soldier's ration.
- (e) The sanitation of army hospitals.
- (f) The duties of medical officers.

11. THE INFLUENCE OF CLIMATE ON HEALTH.

- (a) The geographical distribution of disease.
- (b) Diseases of tropical countries and their prevention.
- (c) The agency of insects in the transmission of disease.
- (d) Climate and consumption.

12. THE PUBLIC HEALTH DUTIES OF THE PHYSICIAN.

- (a) The disinfection of his own clothing and person.
- (b) The notification of infectious diseases.
- (c) Isolation and disinfection.
- (d) Sanitary advice.

I have now given a definition of hygiene and an outline of special topics that may constitute a course in this science. Before the student enters upon the study of hygiene, he should have completed thorough courses in the general and fundamental facts of physics, chemistry (both inorganic and organic), anatomy, physiology, and bacteriology. It is useless to attempt to discuss scientifically heating and ventilation before those who know nothing of the physics of heat or the diffusion of gases. It would be equally idle to talk of the force value of foods to those who have never heard of the conservation of energy. If the student in your class in hygiene is ignorant of organic chemistry, the statement that the chief food principles are proteids, carbohydrates and fats will not convey to him much information. One must know something of bacteriology before he can listen with profit to a lecture on food-poisoning.

What methods are best suited for giving instruction on the above-mentioned subjects in hygiene? To a teacher of

experience it is well known that no cast-iron methods of instruction in any branch of science can be followed. The successful teacher is one who is resourceful, quick to see whether or not students are getting the information which he is attempting to impart, and ready to adapt his methods to the particular students under his charge at the time. Moreover, he must manage to give some students in his class more work than others have. In teaching hygiene this is very easily done, and is generally appreciated by those upon whom the extra work is imposed, because it implies a compliment. Text-book instruction, as this is generally understood, is impracticable for several reasons. In the first place, the compass of the instruction to be given is too great to be covered by any text-book. Secondly, advances in this science are being made so rapidly that a text-book in hygiene is hardly dry from the press before it is obsolete in some part. Thirdly, each year brings with it some new problem that must be discussed.

Who dreamed three years ago that questions in military hygiene would be of the great importance to us that they have since assumed, or who supposed at that time that tropical diseases and their prevention would so soon become matters of practical interest to us? Three years ago the bubonic plague was barely mentioned with reference to the history of epidemics and with the statement that it had recently reappeared in China and India. Now the measures adopted by our Government and European countries to prevent the diffusion of this disease are of interest to every intelligent citizen. In discussing the question of water-supply before our next classes, we cannot omit reference to the work recently done by FULLER at Cincinnati in the preliminary experiments on the purification of the water of the Ohio River, to the filtration-plant now being constructed by HAZEN at Albany, or to the effects of the drainage canal on the water of the Illinois and Mississippi rivers, even if we fail to mention the valuable experiments made a few years ago by the Massachusetts Board of Health on the purification of sewage by filtration. The problems of hygiene are living questions of to-day, and are not suitable for embalment in text-books. Even the elaborate hand-books of hygiene that have been written—and there are some most excellent ones—cannot be placed in the hands of the student without the caution that the statements therein made represent the best information of the writer at the time of writing, and not that of the present time. Again, books on hygiene by foreign authors, however eminent they may be, are not suited to American students. As an illustration of this, I may mention the most admirable work by the late Dr. PARKES of England. Even in the most recently revised edition this classical work cannot be used as a text-book in our schools. If our school-houses were not provided with more efficient means of ventilation than that recommended by some European authorities on hygiene, we would expect our children to die of asphyxia, or if we were limited to the amount of water-supply per capita recognized as ample by the same authorities, we would always be both thirsty and dirty. For these and other reasons, text-book instruction in hygiene for medical students I believe to be wholly impracticable.

The course in hygiene should consist of (1) lectures, (2) collateral reading directed by the teacher, (3) the observation and description of sanitary appliances, and (4) laboratory experimentation. The lectures must of necessity be condensed, and should consist, for the most part at least, of the statement of bare facts. This part of the instruction is for every member of the class, and it may be all that many of them can carry along with other work. Frequent quizzes should be given in order to ascertain whether or not the students correctly comprehend, retain and correlate the statements made in the lectures. An occasional written examination on the lectures is desirable. In directing the collateral reading, the teacher has the opportunity of distributing the burdens imposed on individual students as he chooses. He may request one or more students to read an article or a book, and present to the class a digest or abstract of what he has read. I frequently ask five students to read one article or book, and require four of them to write digests of what they have read, and these are turned over to the fifth student, who reads each, adds such comments as he deems fit, and then hands them to me or my assistants. (I must admit that it is by no means a pleasant occupation to read students' essays; but I am confident that since the writing of these has been abolished, medical students have too little instruction in the art of essay writing.) Sometimes I request five students to read up some subject, and then have one of them give a short talk on it, while the others are permitted to criticize.

Many useful lessons may be imparted by asking students to observe and describe sanitary works. One is asked to visit a part of the city where the sewer system is being extended and to write a description of what he sees, with such comments as he desires to make. Another is asked to investigate the heating and ventilation of some public building, while a third interests himself in the plumbing. One lives in a city where the water-supply is filtered, and he is asked to describe the process to the class. While there is no attempt to make sanitary engineers out of medical students, studies and observations along the lines here suggested are both interesting and profitable.

Laboratory methods of teaching hygiene do not differ from those followed in physical, chemical, and bacteriological experimentation. Practically the only hygienic laboratory courses given to medical students are: (1) The sanitary (chemical and bacteriological) examination of drinking-water. (2) The analysis of foods and the detection of adulterations. In all of the best equipped schools facilities for the prosecution of research in the various lines of hygienic study are now at the service of advanced students.

Pathogenesis of Gall-stones.

HUGO SUMMA (*St. Louis Medical Review*) thus concludes his study of the subject: The causation of gall-stones is very manifold. Their formation requires a union of at least two factors. Notwithstanding all our efforts made so far, there are still a number of etiological factors unknown to us. We do not as yet understand the chemical changes in the bile, and the anatomical changes in the gall-bladder in various, especially febrile, diseases. One very important group of gall-stones is apparently due to the combined effect of temporary impediments in the outflow of bile and lithogenic outarrh of the biliary system. The chief material of these gall-stones—cholesterina and them salts—is not derived from the bile, but from the destruction of the epithelial cells of the mucosa. The pathogenesis of gall-stones is still in its infancy.

A MIRROR OF PRACTICE.

PSEUDO-CYST OF ABDOMEN: OPERATION: RECOVERY.

By J. T. WILLIAMS, M.R.C.S., ETC.,

*Honorary Surgeon to the North Lonsdale Hospital,
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J. C., aged 15 years, apprentice fitter, was admitted on October 27th, 1900, suffering from a large swelling in the left hypochondriac and epigastric regions. He had always been a delicate boy, troubled much with diarrhoea in the morning, never at night. His present illness began quite suddenly on October 5th with vomiting at 7 A.M. This sickness continued all the day, accompanied by severe pain in the epigastrium, but very soon spread over the upper part of the abdomen, and continued until his removal to his home, when hot cloths were applied. The vomiting and pain continued, but not so frequently and severely. He could take milk generally; nothing else could be retained.

On examining the site of the pains no swelling was discovered; no rigor; no rise of temperature. The symptoms continued much the same for ten days, when an enlargement became apparent in the left hypochondriac region, which increased pretty rapidly and encroached on and gradually passed across the middle line for about two finger-breadths, and extending downwards into the umbilical and left lumbar regions. The swelling was tender to the touch; there was no cedema or redness or dilatation of the veins of the abdominal wall. There was dulness over this area on percussion, and a thrill could easily be ascertained. The liver percussion area was normal; the spleen dulness was not increased in the axillary line. The tumour did not move with respiration; the dulness was not continued into the left kidney region behind. The urine was healthy, pale, straw colour, faintly acid reaction, specific gravity 1014. The features were pinched and the expression anxious. Pain was very severe at night, and morphine had to be given hypodermically to relieve the extreme restlessness. There was no vomiting on the day of his admission to hospital or during his stay there; the tongue had a thick white moist fur.

On consultation with my colleagues, it was generally considered that we had a hydatid cyst to deal with, probably of the spleen. His condition was so serious at this time, and so urgently called for relief, that it was determined to explore the swelling. On October 30th an incision about 2 inches in length was made vertically over the most prominent part of the tumour. On opening the peritoneum, it was found that the anterior wall of the stomach presented in the wound, and being so pushed from behind that it was impossible to proceed any further until the wound was enlarged. By carefully pushing the omentum aside, the wall of the cyst was reached, and was packed round as well as possible with sponges and tapped with a trocar, but owing to its depth and the firm manner in which it was held, I am afraid there was some soiling of the peritoneum with

the contained fluid. When the bulk of the fluid had been drawn off, it was possible with great difficulty to bring up the cyst wall and stitch it to the skin margins; then a piece of tissue about the size of two fingers was pulled out of the cavity, looking like fat or omentum much necrosed; at the time of the operation or since, no real cyst wall has been seen. A large rubber drain was inserted; the amount of fluid drawn off measured 3 pints, and was of a dull opalescent colour and quite odourless. The Clinical Research Society report says:

The necrosed piece of tissue is fatty, probably omentum or mesentery, but being in a necrosed condition is quite useless for histological purposes. The fluid contains many cells like pus and blood cells and granular *débris*. A careful examination has been made for scolices with entirely negative results.

After the operation his recovery was without incident. The temperature never rose above 99°F., and he left the hospital in about three weeks with the wound soundly healed, and looking more robust than he had ever done before.

It is likely that this very interesting case originated in a thrombus in one of the veins of the gastrosplenic omentum, with necrosis of a portion of that structure and its subsequent distension with fluid, which was evidently sterile, or it could not have failed to set up peritonitis, as it was absolutely impossible to prevent some soiling of that membrane on account of the great depth at which the tumour was placed (and before it was emptied) its immobility?

ABDOMINAL SECTION FOR ADHESIONS OF STOMACH.*

By JOHN TENNANT, M.A., M.D., EDIN.,

Ulster Hospital for Women and Children, Belfast.

E. L., aged 39, was admitted on December 27th, 1899.

History.—She had had good health till 1892, when she had hæmatemesis. Afterwards she had almost constant dyspepsia, but there had been no further hæmorrhage until December 6th, 1899, when she says she vomited a quart of blood; since the latter date she had been in bed, unable to retain solid food, and suffering almost constant pain in the stomach.

Condition on Admission.—She was pale and emaciated; weight, 5st. 6lbs.; the pulse was constantly over 100, but the thoracic organs and kidneys appeared to be healthy. A tumour as large as a pheasant's egg could be seen and felt in the abdominal wall, immediately to the left of the umbilicus. It was tender and immovable, and came within the area of stomach resonance.

Progress.—During the four weeks following admission her temperature continued to rise irregularly at night; vomiting was frequent and pain almost constant, and her weight decreased by 7 lbs. Drs. WILLIAM CALWELL and J. ST. CLAIR BOYD saw her several times with me, and advised operation.

Operation.—On January 27th, under ether, the abdomen was opened through the left rectus abdominis muscle over the tumour. The latter proved to be a thickened and vascular area of the rectus sheath, which was incorporated with the stomach wall, and surrounded by filamentous adhesions. Strong adhesions also existed between the anterior wall of the stomach and the falciform ligament of the liver (which was much thickened), and the lower surface of the liver as far back as the gastrohepatic omentum. The left rectus muscle was divided, and the adherent part of its sheath was cut away and left attached to the stomach. The remaining adhesions to the ligament and capsule of the liver were tied and divided, and the free end of the gastrocolic omentum was brought up and sutured to the under-surface of the liver to prevent adhesions reforming, as it was found that the diseased area of the stomach was so thickened and friable as to prevent invagination of the wall. The wound was then closed.

After-history.—The patient made a good recovery from the operation, and was free from pain and vomiting during the remainder of her stay in hospital. She was discharged on March 14th, at which time she was taking the ordinary hospital diet without discomfort, and weighed 5st. 9lbs. She was last seen in July, when she was still very thin, but free from dyspepsia.

REPORT OF A CASE OF RUPTURED LIVER.

By SEELYE W. LITTLE, M.D.,

Rochester, New York.

RECOVERY from this accident seems to be rare, which is the only reason for making this report.

R—, aged 35 years, a cavalier, was struck in the epigastrium a hard blow with a stick of wood. He was brought to the City Hospital on September 8th for treatment, within three or four hours of the accident. On entering, he was in collapse; his pulse was small and feeble, his face was pale and anxious, and his extremities were cold. He complained of severe pain in the epigastrium. On examination no mark of injury could be seen. There was no unusual dullness on percussion over the abdomen. Clear urine was obtained by the catheter. There was some vomiting. The diagnosis lay between the ordinary "knock-out" blow over the solar plexus and rupture of some organ with hæmorrhage. When the abdomen was opened, it was found to contain a large amount of free fluid and clotted blood, and the bleeding was evidently still going on. The first organ examined, the liver was found to have been torn to the extent of three or four inches on the anterior inferior surface of the right lobe between the gall-bladder and the longitudinal fissure. The rent was large enough to contain the ends of four fingers, and was about three-fourths of an inch deep, with ragged sides and edges. The wound was packed with gauze in a gauze bag, which was held in position by a heavy silk ligature passed through the abdomen from the right side behind close to the free border of the ribs to the left side in front just below the rib cartilage at

* Reports on Medical and Surgical Practice in the Hospitals and Asylums of the British Empire.

that point. This ligature thus hugged the right lobe of the liver, and, by passing over the gauze packing, held it firmly in place. The ligature was tied tightly on the outside of the body, care being taken to feel that no coil of intestine was caught by the tightened silk. The lower part of the wound was closed, the upper part being left open for the removal of the gauze. For the first day or two there was considerable oozing of blood. Then for about ten days or two weeks there was a profuse discharge of bile, gradually lessening until there was none. The gauze and ligature were removed on the eighth day. The large cavity left by the gauze filled up rapidly, and on October 30th the patient was discharged well.

REMOVAL OF TWO HUNDRED AND EIGHTY GRAINS OF WHITE WAX FROM THE MALE URINARY BLADDER.

BY ORVILLE HORWITZ, B.S., M.D.,
Philadelphia, U. S. A.

G. L., twenty-five years of age, was admitted to the wards of the Jefferson Hospital during last September. He complained of a frequent desire to urinate, followed by hemorrhage at the termination of the act. Pain, referred to the neck of the bladder and to the meatus of the penis, was experienced at the end of micturition. He stated that, twenty-four hours previous to his admission, he indulged in sexual intercourse, and in order to prevent his mistress from becoming impregnated, he inserted into the urethra a roll of white wax, eight inches long and about 26 millimeters in circumference. This was passed into the urethra until its end was just within the meatus. Almost immediately after intercourse had begun, he felt the wax bougie slip into the bladder, the sensation was associated with a good deal of pain. On completing the act, he discovered blood oozing from the meatus and felt a burning, stinging pain in the vicinity of the neck of the bladder. The introduction of a stone searcher readily detected the foreign body. Suprapubic cystotomy was performed, and, on opening the bladder, it was found that the wax had become rolled up in the shape of a large ball. On attempting to deliver it by means of the lithotritic forceps, the blades of the instrument became buried in the soft mass, and when traction was made, the wax was pulled out in a long thin strip, which could be stretched several inches beyond the abdominal incision. In order to remove the mass, it became necessary to insert into the bladder the index fingers of both the right and left hand, to grasp the mass and mould it into the shape of a sausage. By this means it was brought to the outer edge of the abdominal incision, where it was grasped by haemostatic forceps and held until it was caught at a point below by means of a second pair of forceps, thus gradually, hand-over-hand, it was finally removed. It was deemed fortunate that the suprapubic route was chosen in preference to the perineal, for had the latter operation been selected, it would have been impossible to have removed the wax, and the bladder would probably have been a good deal damaged by the attempt. The wax had to be grasped with the forceps while in sight, the touch being deceptive, the soft wax feeling exactly like the wall of the bladder. Many strange foreign bodies have been removed from the bladder, but, so far as I know, the history of this case is unique.

Indian Medical Record.

10th April 1901.

SOME REMARKS ON HEPATIC INFLAMMATION WITH SPECIAL REFERENCE TO HEPATIC ABSCESS

THE *Medical Brief* publishes a paper on Hepatic Abscess by Surgeon-General J. A. MARSTON, O.B., M.D., F.R.C.S., Eng., late President of the Army Medical Board, embodying the writer's own valuable experience on this subject. We extract the more important observations. After alluding to the frequency of affections of the liver in the tropics, the author indicates that enlargements of the liver were attributable to active and passive congestion, the latter due to mechanical causes and a measure of the difficulty with which the blood passes through the right heart, for example. Then, again, it was useful to divide these enlargements into those of a painless and a painful character, and to further subdivide them into those which were smooth or irregular or nodular to the touch, which latter included the cirrhotic and malignant forms of disease. The writer then emphasises the necessity of a thorough appreciation of the dimensions of the normal liver and a systematic examination of that organ in a person supposed to be suffering from hepatic disease, and especially abscess of the liver. Bear in mind its relations to the lung, and that both the upper and lower borders of the liver are curved. Trace out by percussion the upper border, beginning where the sound is clear, and continuing downward until the limit of dulness below, noting that, owing to an overlying thin layer of lung in front, the sound is not quite dull above. The lower border of the normal liver corresponded with the lower margin of the ribs below the right nipple, and extended across the epigastrium for two or three inches below the junction of the sternum with the lowest costal cartilage. From behind, the curved upper border extended along a partially dull line from the tenth or eleventh dorsal vertebra to the seventh intercostal space on a line with the centre of the axilla, and to the fifth intercostal space on a line with the right nipple from which the dulness is prolonged to the apex of the heart. To define the upper border percuss strongly: at the lower the finger should be pressed firmly down and percussed lightly. The upper line of an increased lower dulness was not horizontal, as in hydrothorax or empyema, but descended towards the spine. To feel the liver when enlarged, slide the edge of the hand along the abdomen from below upwards, while the abdominal wall is rendered supple and relaxed by position, until the edge of the liver is reached, and notice the effect of respiration during two or three full breaths. The tips of the fingers, also, should then be employed for the same purpose, and search should be made for any tender spot beneath the right ribs or in the intercostal spaces between them. Then the patient should be told to rest on his elbows and knees with one hand behind and the other in front of the right hypochondrium, and a further examination

made while the patient draws a deep breath. The lungs should also be examined to define the respiratory area and the presence or not of pleurisy or any other disease. Malarial hepatitis did not end in abscess—it was of a plastic and not suppurative nature, leading to chronic enlargement and induration and often to waxy, lardaceous, or fatty degeneration, but not to suppuration. Too much animal food, a fatty stimulating diet, the lethargic and enervating tendency of heat and the temptation to have recourse to alcoholic stimulants to overcome it, and the vastly increased action of the skin with the great liability to chills, were all factors and contributors to congestive or inflammatory diseases of the liver in hot climates. Dysentery, however, was undoubtedly one of the main causes of liver abscess. It was sufficiently evident that heat alone did not determine active liver disease, and that alcohol was prejudicial was indicated by the fact that French troops who were more abstemious than British suffered less, and that, as regards sickness and mortality rates generally among the British serving in India, total abstinents gave by far the best results. The habit of taking a copious draught of iced waters with some alcoholic stimulant immediately after exercise, so prevalent in India, is emphatically condemned by the author, as also the practice of proceeding rapidly in the hot season from the plains to a hill station. It would be an excellent thing, thinks the writer, if Turkish baths were established at Indian hill stations, to which those coming from the plains of India could proceed until their animal machinery had gradually adjusted itself to the new environment. Hepatic abscess, associated with or following dysentery was more frequently multiple than when unconnected with any history of dysentery. Should an examination reveal only hyperæmia, treat the case by confining the patient to bed on milk diet, avoiding all alcohol and meat: give a dose of calomel, followed up by Epsom salts or Carlsbad, and then commence at once the use of ammonium chloride in 10-gr. doses thrice daily between meals: a few leeches to anus may be necessary. This treatment may succeed or the case become chronic—some enlargement of the liver remains, while no sign of suppurative action can be discovered: a sea voyage and a change of climate are then essential, and nitro-hydrochloric acid baths will be found beneficial. The general symptoms making up the medical history of hepatic abscess were matters of ordinary professional knowledge. It occasionally happened that the presence of liver abscess was attended with relatively very little distress or constitutional disturbance, but on the other hand there were many difficult cases where the symptoms so closely mimicked those of hepatic abscess as to have deceived the very alert, and yet no abscess existed. But these were rare cases. What were the most important points to be investigated and considered in making a diagnosis? (1) There was the patient's previous history and actual condition, as regards his complexion, his more or less emaciation, foul tongue, dyspeptic symptoms, irregular bowels, rigors, depression of spirits, and gradual deterioration of health. (2) The results of a very careful and systematic examination of the liver as regards its size, and the presence or not of any bulging or any tenderness,

together with those of the examination of the right chest, especially as to the presence or not of any disease in the lung or pleura. In doubtful cases, especially, this examination, if practicable, should be repeated from time to time. (3) The presence of fever and the result obtained by the systematic use of the clinical thermometer. The fever was quotidian and intermittent or remittent in type—a kind of hectic with nocturnal sweating. (4) Lastly, the evidence obtained by aspiration. Differences in the morbid phenomena and differences of degree must occur in different cases, but their general conformity or not, as a whole, to the type, would commonly suffice to guard against any serious mistakes. Having diagnosed hepatic abscess, nothing remained to be done but the evacuation of the pus by surgical operation. An abscess, when left to itself, occasionally made its way to the surface through the abdominal parietes or upwards to the lung through the diaphragm, or emptied itself into the intestine; but the occurrence of a contingency of this kind could not be reckoned upon with any degree of certainty, and even should it happen, the chances of recovery were less favourable than those of operation antiseptically carried out. The relief to all symptoms following such operation was both striking and prompt. The ultimate result of the operation must materially depend, of course, upon whether the abscess was single or multiple, and whether the liver had been emptied of its purulent contents, and it would also greatly depend upon the care and skill with which the operation had been performed. In some cases time was a necessary element to the formation of a correct diagnosis, and in the interval the practitioner should treat the case as one of acute congestion or inflammation. The bowels should be kept freely open and the treatment advocated above for hyperæmia strictly carried out. If the liver became reduced in size and lost all tenderness on pressure, and the tongue cleaned, and, more especially, if all fever disappeared and the temperature became and stayed normal, it was well. Should little or no improvement, however, ensue, then the liver should be aspirated—the aspirating needle being inserted for choice at any tender spot, if such there was. If no pus were found, the liver depletion frequently seemed to do good. It was better to run a certain amount of risk from hemorrhage than to allow an hepatic abscess to remain undetected and untreated.

TREATMENT OF INSANITY.

Gaillard's Medical Journal reproduces from the *Cincinnati Lancet-Clinic* an interesting paper on the Treatment of Insanity, read before the Miami Valley Medical Society by Dr. F. W. LANGDON, M.D., of Cincinnati. We cull the essentials. The main fact to recognize, in the author's opinion, was that the way to treat insanity was to let the insanity alone, and treat the patient. In some degree, at least, insanity depended on the present state of development in relation to the environment of man. Hence the main reliance in treatment was placed in modifications of the patient's environments. Dr. LANGDON divides insanity into two great groups:—

A. The incomplete or abortive types, such as "post-typhoid dementia," the "wandering psychoses," "psychic

epilepsies," "hebephrenia," "sexual perverts," etc. Neurasthenia was not an insignificant factor in these cases, and was sometimes of serious import in the young. This class of cases showed themselves at the "developmental periods" of early life, *viz.*, puberty and early maturity—in other words, when important physical and psychological developments were going on. They were thus disorders of evolution rather than of dissolution.

B. The fully-developed types of insanity, easily recognized and possessing more or less definite indications for treatment at their homes, or institutions—the manias and melancholias, the dementias and paranoidias. These two classes might be considered under five heads:—

(a) *Childhood—first to twelfth years.*—Insanity was rare in childhood, and belonged mainly to the first group—the indefinite psychoses—resulting from defects or delays in development, impaired nutrition, sequelæ of infectious disease, neurasthenia, etc., although it was quite possible to have pronounced mania and melancholia at this period. The violent and "incurable" were examples, their cerebral "reflexes" being uncontrollable by higher mechanisms. The predisposing causes (heredity) could not be removed, but much could be done to render inoperative the exciting causes, such as malnutrition, associations, late hours, mental over-excitement, social, religious or educational, emotional literature, etc. Above all, a few years spent in the sunshine of fields and woods, with careful attention to general hygiene and nutrition, were worth more than everything else combined. As regards the treatment of the developed psychoses in children, this may be conducted at home, provided there were isolation in hygienic quarters, a skilled nurse, who must be a stranger to the patient, and careful medical supervision. The treatment might be arranged under three heads: (1) *Eliminative*—attention to the skin, the kidneys and the bowels: hydrotherapy was a valuable measure in this connection. (2) *Dietetic*—the four *Fs.* of FOTHERGILL—fish, fat, fruit and farina, sweet breads and fowl, eggs, oysters, butter and cream. The symptomatic treatment comprised drugs to alleviate constipation, constitutional toxemias, distressing mental or motor activity, insomnia, etc. In cases of maniacal type with great motor excitement and insomnia, sulphonal was valuable and hyoscine hydrobromate was effective, but should be given with great caution.

(b) *Adolescence—twelve to twenty-five.*—This was a much more prolific period in psychoses than childhood. Home treatment was practicable in the great majority of these cases, and the results in first attacks were usually good under intelligent treatment. The rules stated above as to isolation, nursing, hygiene, etc., were essential elements. A rare form of insanity that occurred in this period of life and later was acute delirious mania, otherwise known as "typhomania" "or delirium grave"—a suddenly developed mania with "typhoid symptoms," accompanied with a temperature of 100° or 102° and great depression. Such symptoms were of unfavourable prognostic import, and a fatal termination within ten days was probable. It might be averted by prompt resort to active stimulation with alcohol, together with general nutritional and eliminative measures. In the definite

psychoses, hypnotics were needed, opium preferably, where there was much depression, and measures directed to the blood state were important. For abundant and persistent phosphaturia, sulphonal, opium and even chloral were needed, together with proper attention to foods and digestion. The administration of thyroid gland or its products had in suitable cases produced gratifying results. The remedy was contraindicated in acute insanity, tuberculosis, valvular heart disease, and in marasmic states generally. Finally, the association of insanity with pulmonary tuberculosis in the adolescent should always be borne in mind.

(c) *Maturity—twenty-five to forty-five.*—This period was generally considered the most prolific in mental disease, but in the author's experience the most prolific period, numerically speaking, was the second, namely, from twelve to twenty-five. The insanities which do develop in mature life were apt to be of rather pronounced type, more definite in outline, "more fixed" in manifestation, and the prognosis was, on the whole, less favourable than in earlier life, and especially so where repeated attacks had gone before. They presented, however, no special indications for treatment other than those already stated for adolescents. Home treatment was feasible if dangerous delusions were absent and facilities were obtainable for proper isolation and nursing: otherwise institutional treatment was advisable.

(d) *The climacteric—forty-five to sixty.*—There was here a return of the liability to "irregular and abortive types" of psychoses, such as characterized childhood and adolescence, the evolutionary irregularities in women especially being replaced by those of involution. The WEIR-MITCHELL "rest cure," or some of its modifications, was an excellent measure in such cases, the electrical feature of the treatment being omitted.

(e) *Senility—sixty to eighty.*—The most remarkable fact about the nervous dissolution of this period was that it was seldom or never primary: the psychic machine did not wear out in its most active parts, but was clogged by the maldevelopment of inert tissues and the accumulated debris resulting from deficient excretory action. Hence the arterio-scleroses and the toxemias resulting from defective action of kidneys, bowels and skin were important factors in the senile insanities. The indications for treatment of these conditions were obvious, and the results often surprisingly good. The treatment of the insanities could be summarised as follows: (1) A great majority of first attacks were amenable to home treatment if proper facilities for isolation, nursing, hygiene and medical attention were procurable. (2) Treat the patient, not the insanity. (3) Treatment should consist of: (a) *Causal*—removal of excitants and depressants. (b) *Somatic*—eliminative and nutritional. (c) *Symptomatic*—allev restlessness, promote sleep, secure development in adolescence; favour involution in the climacteric. (d) *Institutional treatment* was advisable in paranoia with dangerous delusions, in recurrent mania with violence, in paresis, in the terminal dementias following other insanities, and in all cases where proper isolation and nursing could not be afforded, or where the associations were such (children, &c.) as to make the patient a menace to the psychic health of others.

COMMENTS AND NEWS.

CLINICAL SIGNIFICANCE OF THE DISCHARGES IN INFANTILE DIARRHŒA.

DR. W. E. DARNALL, M. D., of Atlantic City, writes to the *Prac. Med.* on the subject of the Clinical Significance of Discharges in Infantile Diarrhœa. We curtail from an abstract in the *Medical and Surgical Reporter*. Infantile diarrhœa may be classified as follows :—

I. The Mucous Stool.—Small in amount : whitish, ropy mucous faintly streaked with blood, stained with feces, frequently associated with nervous derangements of teething and also the result of errors in diet. It was a matter of some importance to be able to locate just what area the mucous came from. In dysenteric states the stool was bloody or even hæmorrhagic, with much tormina and tenesmus : with ulceration, pus and shreds of necrosed mucous membrane were present.

Treatment.—If neurotic, remedies designed to restore normal nervous tone might be employed, good hygiene being of first importance in all cases. If irritant, castor-oil followed by large doses of bismuth held in suspension with mucilage of acacia. If dysenteric, calomel and ipecac and silver nitrate enemata, which were also useful when ulceration was present.

II. Serous Diarrhœa (Cholera Infantum) : copious watery discharges which hardly stained the napkin, often with severe vomiting and collapse. The vasomotor system was profoundly depressed, and the abundant flow appeared to be caused by the relaxation of the intestinal vessels supplied by the splanchnic nerves. Temporizing here meant death to the child.

Treatment.—Abdominal counter-irritation : morphin and atropin hypodermically ; champagne and brandy : lavage of the stomach to check vomiting : rectal enemata of saline solutions : excessive purging allayed by rectal injections of starch water and laudanum.

III. The Pasty White or Musty Stool.—Discharge hardly visible on the napkin, with appearance of a paste made of water and chalk : odour musty or mousy. The stool indicated a complete atony of the glands of digestion.

Treatment.—Restore activity to the glandular functions by producing a copious flow of bile : podophyllin in one-twentieth grain doses : if a catarrhal condition remained, then, and not till then, were astringents indicated. In each of these three varieties all food should be withheld for a short time, thirst being allayed with barley water : the child did not usually suffer from want of nourishment for a day or two.

IV. Dyspeptic Diarrhœa.—The whole management here was a question of artificial feeding rather than the administration of medicine. There were two varieties :—

(a) *Acid (fermented)* : discharge leaden in colour, acid in reaction and sour.

(b) *Alkaline (decomposed)* : grass-green stool, alkaline in reaction, foul and offensive. In both stools curds of undigested food were present.

Treatment.—In (a) withdraw all carbohydrate foods, milk, &c., and administer beef-jules, albumin water and meat broth : in (b) these foods should be prohibited and carbohydrates given.

COUNTRY SLAUGHTER-HOUSE AS A FACTOR IN THE SPREAD OF DISEASE.

IN a communication to the *Medical and Surgical Reporter*, Dr. CHARLES WADSWELL STILES, PH. D., Washington, D. C., gives his views on the subject of the Country Slaughter-house as a Factor in the Spread of Disease. We give a summary. (1) A well-regulated system of slaughter-houses is as necessary to the public health as is a well-regulated system of schools to the public education. (2) Every slaughter-house is a centre of disease for the surrounding country, spreading trichinosis, echinococcus disease, gid, wireworm and other troubles caused by animal parasites and tuberculosis, hog-cholera, swine plague, and other bacterial diseases. (3) The important factors concerned in spreading these diseases are offal feeding, drainage, rats and dogs. (4) These diseases may be gradually held in check, and in some cases entirely eradicated in two ways : First, by a reduction in the number of premises on which slaughtering is allowed, on which account it is urged as all-important that there be a segregation of the slaughter-houses, so that all the butchers of any given town will be compelled to do all their killing in a common enclosed and restricted area. In abandoning slaughter-houses, care should be taken to destroy the rats in order to prevent the spread of infection. Second, by regulating the factors concerned in spreading the diseases.—(a) Offal feeding should be abolished ; (b) drainage should be improved ; (c) rats should be destroyed ; and (d) dogs should be excluded from slaughter-houses. (5) A licensing of slaughter-houses by the State and the employment of an assistant State veterinarian, whose sole or most important duty shall be a sanitary supervision of all places where animals are slaughtered for food, are necessary. (6) The appointment on every local board of health of a competent veterinarian, whose duty it shall be to control the class of meat placed upon the block, is urged. All meats should be inspected at the time of slaughter, thus securing for the local consumer the same guarantee that the National Government provides for the foreign consumer and for interstate trade. (7) The prohibiting of the raising of any kind of stock within the premises of slaughter-houses is advised, as are also State regulations to the effect that, when a stock animal (horse excepted) once enters the premises of a slaughter-house, it must never be allowed to leave those grounds alive, but must be slaughtered within two weeks' time. (8) It is advisable to use more substantial building material in the construction of slaughter-houses. (9) The country slaughter-house is more injurious to the farmer than to other classes, as he is less able to meet the dangers involved, and on this account he is urged to take the initiative in calling for a better regulation of places of slaughter. (10) When a farmer kills stock for his own use, he should burn or bury the offal, or cook it in case he feeds it to hogs.

R. A. M. C. ENLISTMENT.

A NEW Army Order, issued on March 11th, provides for the enlistment of a certain number of men trained in ambulance and nursing duties for the Royal Army Medical Corps for the duration of the war in South Africa. Men must be between 20 and 40 years of age, physically fit, and of good character. They will be enlisted as privates and receive 3s. a day (compounders 3s. 6d. a day), free kit, rations on active service, passage abroad and home, and a gratuity of £5. at the termination of the war. Married men may be accepted, and facilities will be given, when possible, for their families joining them in South Africa on the cessation of hostilities.

ST. ANDREW'S HOMES FOR ANGLO-INDIAN CHILDREN AT KALIMPONG.

THE first number of *St. Andrew's Colonial Homes Magazine* has reached us, and been read with great interest. It is issued in the interests of the Homes established at Kalimping by the Church of Scotland for children of European descent. The general purpose of this undertaking is already familiar to our readers. We now are able to report that the first Home—the cottage system has been adopted—was opened on the 24th of last September, and already the full complement of 20 children has been received. But this is in a hired bungalow. The foundation stone of the first of the special cottages to be built was successfully laid on the 8th November by the Hon. J. A. BOURDILLON, C. I. E., Chief Secretary to the Government of Bengal. The cottage is named "Woodburn Cottage," after the Lieut.-Governor, Sir JOHN WOODBURN, who has taken great interest in the scheme, and to whom is largely due the thanks for the Government grant of the 100 acres of land on which the children are to be trained.

In other ways also real progress is reported. Guaranteed monthly or yearly subscriptions show a good beginning; a trained Scottish agriculturist, Mr. David Leighton, has been engaged to superintend that department of the scheme; he expects to arrive in the coming autumn; and the "House-Mother" and two helpers are also duly appointed. But the *Magazine* contains much more than these details. "The Homes, from different points of view," is the title of a group of four articles by a Calcutta merchant, a clergyman, a tea planter, and a barrister, each dealing with some special side of the need, and showing how these Homes are adapted to meet that need. We are sure many would be interested in reading these letters in full. Not only is the idea of emigration to the Colonies urged and expected, but those who do not emigrate will be immensely benefited for life in India by the training the Homes will give, and in many ways India will be the direct gainer, if the programme can be carried out. The editor says: "We cannot rest content until we can keep open the door for every child [in whose veins runs British blood] in India requiring help." The Honorary Superintendent is the Rev. J. A. GRAHAM, M.A., and he may be addressed—Kalimping, Bengal.

PLAGUE IN CALCUTTA.

Now that the plague has fastened its fangs upon Calcutta in a manner that admits of no mistake, and laughs at all the plague doctors and their regulations, perhaps it may occur by and by to those in authority that the scourge will remain amongst us just so long as we carefully preserve its breeding ground, and refuse, on account of pecuniary considerations, to clear out the legions of insanitary demons that hold high carnival in the foulest quarters of the city. Nothing short of very drastic measures in condemning and pulling down acres of these filthy dwellings will be of any avail. The very ground on which these pestilential plague spots stand is saturated with death-dealing poison. Everybody knows this, and yet we are content to go on thinking we have done all in our power by issuing a few regulations and paying a staff of men to sit at desks and collate statistics of the cases and deaths. Liverpool is about to pull down 8,000 insanitary houses at present in order to improve the public health. The cost is great, but it pays in the end, and the sum expended is more than recouped by the sales of leases of improved building stances at the side of broad streets.

When will Calcutta be roused into action? Possibly when the plague bites some of the Commissioners. If the Viceroy lived in the metropolis during the next eight months, he would probably have thirteen instead of twelve projects on hand. Mr. HARRINGTON's incinerators are good, and there ought to be as many of them as burn up the whole filth of the city, but what is urgently required is the incineration of all condemned insanitary buildings. The present laws give ample power to the Municipality to condemn unwholesome dwellings, if they were only used, Mr. HARRINGTON may be trusted with the incineration. The plague will go on and increase until it is plucked up by the root.

ORIGIN OF SEIDLITZ POWDERS.

THE *Chemist and Druggist* says:—The genesis of Seidlitz Powders seems to be pretty well cleared up by the editorial note last week. The patent taken by Mr. SAVORY in 1815 gives the clue. It would need very direct historical evidence to satisfy an etymologist of the soundness of CHRISTISON's suggestion that the term SEIGNETT's powders became corrupted into that of Seidlitz powders. The first chemist to investigate the nature of the popular natural mineral waters was BERGMAN, the Swede. He published a number of analyses of them in 1778, and in the same treatise he indicated his opinion that artificial waters made from his analyses would be preferable medicinally to the natural waters. About the same time VANEL, a French pharmacien, had made powders which, added to plain water, would yield the effervescence which had made selters water, or eau de seltz, popular. After BERGMAN's analyses were known, salts to produce imitations of the popular waters came into sale, and among these, as is hinted in the article, sulphate of magnesia was supplied both in this country and on the Continent under the name of seidlitz salt. It is not difficult to bridge over the gap between this seidlitz salt and SAVORY's seidlitz powders. Sulphate of magnesia was as nauseous a century ago as it is to-day, and no doubt some Bond Street customers told Mr. SAVORY that while they found his seidlitz salt very effective, they wished he could make it a little more palatable. This set him thinking, and resulted in the combination of ROCHELLE salts with VANEL's eau de seltz powders under the name of Seidlitz powders. It was to an extent a false trade description, but in those days a certain poetic license was regarded, both by traders and their customers, as legitimate.

DON'T IDLY DREAM, BUT DO !

Don't idly dream ! There is no time for dreaming.

No time to drone and loiter on the way.

With opportunity each day is teeming,

That, till you deign to waken, will not stay.

Be, then, alert, for all around you calling

Are voices to press onward, heard by few ;

Heed them, and venture, with no fear falling—

Don't idly dream, but do !

Don't idly dream ! Great deeds await your doing,

Deeds that will live, and you in them may live,

Noble your thoughts, each day your strength renewing.

Be you but true, that strength your faith shall give—

Life striving round you bids you, then, awaken ;

Look, where the future grandly stands in view.

In God press onward ! Be your trust ne'er shaken !

Don't idly dream, but do !

THE BRITISH MEDICAL REGISTER FOR 1901.

The *British Medical Journal* says:—We are glad to know that the *Medical Register* for 1901 (London: SPOTTIS-WOODS and Co., price 6s) has been issued somewhat earlier this year than in recent years. We are informed that the Registrar made special efforts to get so forward with the corrections of the work in proof during last year as to allow of the whole of the revised matter being sent to press early in January, and that the long period since then has been occupied in the final printing, binding, and issue. The number of pages has increased from 1,798 in 1900 to 1,841 in 1901, and the number of registered medical practitioners from 35,886 to 36,355. The number of new names entered during the year 1900 was 1,345, but after deducting names erased on evidence of death and for other causes, the net increase is only 519. The number of names erased on evidence of death was 585, or 25 above the average for the last 25 years, and 26 over that for the last five years. Special inquiries have been made under the machinery provided by the Medical Acts, and the Registrar believes that, at least as far as the first-half of the volume is concerned, no name of any practitioner deceased prior to the end of 1900 will be found. Letters of inquiry sent out from the Council Office were in 845 cases returned through the Dead Letter Office, and the names of the persons to whom they were addressed have consequently been erased from the *Register*. The total number of removals from all causes was 988, or 205 over the average for the last five years. As the same system of revision will, we are informed, be pursued during the present and succeeding years, it will behoove practitioners to be careful to notify changes of address and to attend to letters of inquiry, lest the efficient working of the machinery of revision should result in the regrettable removal from the *Medical Register* of any name that ought to remain on it. The number of annual accessions to the list by registration seems now to have become practically stationary, only one practitioner more than the average for the last five years was registered in 1900. The list of bodies represented on the General Medical Council is increased by the appearance of the University of Birmingham, but of course no graduates from that University have yet been registered. The growth of the Colonial List is not rapid; seven practitioners were registered in it during the past year; no addition to the countries to which Part II of the Act of 1886 is extended was made during 1900. The total number of names of Indian and Colonial practitioners in the List is now 79, only about half of whom may probably be domiciled in Great Britain for a longer or shorter period, so that the number of Indian and Colonial graduates who have availed themselves of the opportunity of registration in the United Kingdom is very small. Part II of the Act was extended to the Colony of Victoria so far back as 1890; since then it has been extended also to the Colonies of New South Wales, South Australia, and New Zealand, and to India and Ceylon.

AN I. M. S. LIEUT.-COLONEL RESTORED TO FAVOR.

In the year 1897, while in medical charge of the Rajah-mundry Central Jail, Lieutenant-Colonel SARKIES, I.M.S., was censured by the Local Government on the representation of the Surgeon General in Madras. Later, the Surgeon-General relented so far that he "advised that Colonel SARKIES might now be considered to have purged himself of his offence." Sir ARTHUR HAVELOCK's Government, however, declined to withdraw the censure, and last December Colonel SARKIES appealed to the Viceroy, asking for a full consideration of his case and praying for a transfer "to some province directly under His Excellency's Government, to prove by his conduct and hard work that he has not been justly dealt with in this matter." This petition has met with a favourable reception, and the services of Lieutenant-Colonel SARKIES have been placed at the disposal of the Government of India.

SHORT ITEMS AND PERSONALITIES.

A supplement to the *London Gazette* of March 19th announces that the King has been graciously pleased to appoint Sir William Henry Broadbent, Bart., M.D., F.R.C.P., to be a Knight Commander of the Royal Victorian Order; and A. B. Mackay, M.D., to be a Member of the Fourth Class of the same order.

A Tezpur correspondent writes:—I regret to report that Dr. J. W. U. Macnamara, the popular Civil Surgeon of Darrang, met with a nasty accident on Friday, the 22nd ultimo, when driving out to Mangaldai. His pony shied somewhere near the Singri garden, and, in trying to bolt, the brute smashed the trap, throwing the doctor out, who broke his right forearm and got his face badly bruised. He was unconscious for nearly two hours, and did not quite regain consciousness till about forty-eight hours after. He is now quite out of danger. Miss Macnamara was also in the trap, but fortunately miraculously escaped.

An English paper says Japan is the largest consumer of rice in the world, the average being 300 lbs. each person a year. We question if that amount is not exceeded in Burma and Siam. A forester who employed Burmese, Shans and Karens, says that their consumption was laid in at an estimate of one basket of 48 lbs. per man per month. This would give 576 lbs. per annum for a working man. But, of course, women and children would reduce the average materially.

Sir John William Moore, M.D., ex-President of the College of Physicians of Ireland, contributes some descriptive papers entitled, "A Tour through North-Eastern Ireland" to the *Leisure Hour* for March and April. These articles may be commended to intending tourists to the Emerald Isle.

Lieutenant-Colonel J. French-Mullen, I.M.S., Civil Surgeon of Rajshahi, is allowed privilege leave, combined with furlough, for two years, Major J. G. Joidan, I.M.S., will act for Dr. French-Mullen.

Military Assistant Surgeon Hugh Alfred Lafond, House Surgeon to the Gokuldas Tejpal Hospital, Bombay, has been appointed by His Excellency the Governor of Bombay a Justice of the Peace of that city.

A Hindu lady died on Friday night at the ripe age of 106 years in Calcutta. She was the widow of the late Baboo Pitamber Shaha, of Chinsurah, and has left two sons, six daughters, and nearly sixty grand-children.

At a meeting of the Fellows of the Royal College of Surgeons in Ireland held on March 19th, Sir William Thomson and Mr. Robert H. Woods were elected members of the Council.

Major J. B. Gibbons, I.M.S., Superintendent of the Campbell Medical School and Hospital, Sealdah, is allowed privilege leave, combined with furlough, for twelve months.

Dr. P. Karunakara Menon, a young and energetic Medical Officer, attached to the Civil Hospital, Ponani, Malabar, died on the night of 1st April 1901 of fever.

Dr. W. J. Simpson, late Health Officer of Calcutta, has been deputed to the Cape to report on the outbreak of plague there.

Major D. Hennessy, M.D., R.A.M.C., has been appointed to the charge of the Station Hospital, Dum-Dum.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

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VITAL STATISTICS OF CALCUTTA.

Statement of Deaths from Principal Diseases in Calcutta from the 2nd to the 30th March 1901.

EXISTING MUNICIPAL LIMITS.

Year.	Week ending.	CHOLERA.		PLAGUE.						Small-pox.	Fever.	Bowel com-plaints.	All other diseases.	Total.	Total popula-tion according to the Census of 1891.	Ratio per 1,000 of population per annum.
		Sporadic	Epidemic.	Sporadic.	Deaths.	Deaths.	Deaths.	Epiu mic.	Deaths.							
1901	2nd Mar. "	24	..	..	..	444	405	113	136	92	253	1,023	78.3
	9th "	..	..	..	..	675	557	85	148	94	277	1,187	90.8
	16th "	..	..	..	..	993	819	151	204	79	233	1,529	117.0
	23rd "	65	..	..	..	1,199	1,040	144	147	83	171	1,690	126.3
	30th "	66	..	..	..	1,200	1,119	119	104	74	183	1,665	127.4

J. N. COOK, D.P.H., Health Officer of Calcutta.

Current Medical Literature.

MEDICINE.

Influenza and the Nervous System.

J. M. MOSHER concludes that: (1) The infection of influenza produces a toxin, which has a severe and selective action upon the nervous system. (2) The immediate effects of this toxin are shown in affections of the peripheral nerves and the cerebro-spinal centres. (3) The remote effects are manifested in lowered tone of the nervous system, predisposing to other diseases. (4) These ensuing diseases arise in weakened or predisposed organs, giving rise to the different classes of "respiratory," "alimentary," "genito-urinary," and "circulatory" forms of influenza. (5) Post-influenzal insanities are also a complication of the post-influenzal states of nervous debility, in patients mentally predisposed. (6) The post-influenzal insanities are not essentially different from other insanities due to vital depression. (7) The prognosis of influenzal affections is generally good under proper management. (8) Exception to this is in influenzal affections arising during the course of other severe diseases, as pneumonia and general paralysis, and during scutility complicated by mental or physical deterioration.—*Medical News*.

Influence of Fatigue on the Minute Structure of the Kidney and Liver.

DR. G. GUIBÉ reports the results of his observation on dogs, which were subjected to fatigue by means of a treadmill apparatus, killed, and the tissues of the liver and kidney examined microscopically.

Kidney.—The grosser modifications of structure are in the cells of the convoluted tubules and of the ascending part of the loop of HENLE. The more fatigued the dog, the more profoundly altered are the cells. The protoplasm loses its usual aspect and becomes homogeneous and granular. The cellular body enlarges and the edge between the cells becomes indistinct. The borders of the cells surrounding the opening of the canals may fray out and break, and the cellular protoplasm show vacuoles and cracks, finally crumbling away into a fine detritus. Diseased cells may form a group in the midst of normal ones.

Liver.—The minute modifications of structure of the liver cells are much less than are those of the kidney cells, but they are of the same character.

Pathology and Etiology of Acute Articular Rheumatism.

J. C. YOUNG discusses this question from the standpoint of the effect of the disease as bearing on the question of life insurance. His inferences are as follows: (1) If the disease has occurred in the ancestor and not in the applicant, it need not be considered, for heredity can be traced only in about thirty per cent. of the cases anyhow; and if a parent has had rheumatism, it by no means follows that his child must suffer from it. On the other hand, if such an applicant has himself had an attack already, the probability of recurrence is thereby greatly enhanced. (2) As a rule, the earlier the age at which a primary attack occurs, the greater the likelihood of repeated attacks, the greater their severity, and the greater the probability of cardiac complications. The later, the age, the less the danger to be apprehended from the consequences which the disease engenders. (3) Occupations calling for great muscular exer-

tion, with consequent fatigue and free perspiration, and particularly when the applicant is exposed to sudden chilling, produce more than half the cases, and if he has already had an attack, persistence in such occupation greatly increases the risk. (4) Conditions of living which favor a lowering of tone of the nervous system, or produce a uric acid diathesis, or serve to enfeeble the muscular system, increase the susceptibility of the individual and augment the chances of recurrence. So, too, with diseases which lower bodily resistance. (5) A combination of two or more of these elements just so far increases the probability of recurrence and impairs a risk in the same proportion.—*Medical Examiner and Practitioner.*

Four Cases of Malaria associated with Acute Abdominal Pain.

J. A. OAPPS reports a number of cases from the Massachusetts General Hospital, in all of which (1) there were intermittent fever, nausea and vomiting, and enlargement of the spleen; (2) there was acute abdominal pain of such intensity that exploratory laparotomy was considered by men of experience; (3) the acute pain subsided along with the fever and with the other symptoms after the administration of quinine; (4) typical intracellular forms of the tertian parasite of malaria with motile pigment granules were present in the peripheral blood, but were never very numerous; (5) leucocytosis was invariably absent; (6) a considerable degree of anemia of the secondary type existed. The pain was attributed to some co-existing disease or to neuralgia from malarial poison, or to both combined. Multiple neuritis in malarial subjects, supra-orbital and intercostal neuralgias, cardialgia, enteralgia, etc., are discussed with the pathology of the condition. Periodicity, enlargement of the spleen, and especially the finding of organisms in the blood, lead to the diagnosis in cases of abdominal pain of obscure origin.—*Jour. Amer. Med. Assoc.*

Splenic Anæmia: Anæmia with Enlargement of the Spleen.

ALOYSIUS O. J. KELLY (*Medical News*) reports a case of this kind. He states that the occurrence of a symptom complex characterized especially by grave and progressive anemia and enlargement of the spleen, but unassociated with leucocytosis or enlargement of the lymphatic glands, has been recognized for a long time. The patient under consideration was a girl aged twenty-two years. Both the sex and the age are points of interest, as many of the cases reported have been males, and many have been over thirty-five years of age. However, considering all the cases reported, the disease seems to occur with almost equal frequency throughout all periods of life. The enlargement of the spleen in the present instance was not as great as many others have reported. The hemorrhage was very interesting and of an unusual source—from the genitals. The dyspnea, particularly during the last month or six weeks of life, was extreme, especially upon the slightest exertion. Diarrhea was a marked symptom at the last: there was no obvious cause for the attacks. The fever, as a rule, was very high—usually 103° to 104°F. The blood changes were similar to those in the larger number of reported cases. Medicinal treatment in these cases is most inefficient. As to operation, satisfactory results may be expected in favorable cases. The disease is supposed to last from six months to two or three years. Cases of rapid course are unsuited for operation. But when the course is slower, and the patient in fairly good condition, operation should be carefully considered.

SURGERY.

Nasopharyngeal Adenoids and Ear Disease.

HAIGHT (*Transactions International Otological Congress*) says that adenoid growths are found in varying degrees of frequency in at least three parts of the world, viz., Europe, America, and Asia. He says naso-pharyngeal vegetations are a hypertrophy of the lymphoid tissue forming a mass situated in the vault of the pharynx bounded on either side by the orifice of the eustachian tube. The author believes that the main factor in producing both suppurative and non-suppurative inflammatory conditions of the tympanic mucous membrane is the presence of these adenoid growths, or the condition of the postnares subsequent to their removal or absorption. They produce inflammation of the middle ear (1) by irritation on account of obstruction to the circulation of the blood by pressure: (2) by blocking the orifices of the eustachian tube; (3) by injurious effect upon the general economy of the child, and particularly upon the nerves of special sense; (4) by having as a sequel a postnasal catarrh. Mouth breathing is a prominent symptom of adenoids. ALDERTON is quoted as saying that in his opinion 35 to 88% of cases of middle-ear disease is due to adenoids. The author is of opinion that this affection causes many cases of deaf mutism, and that it is a strong etiologic factor in causing imperfect mental development among those classed as feeble-minded children, and who by a trifling operation could often be restored to the normal condition. As a means of treatment, he prefers the curette to all others, and that children above the age of 12 should have applied a local anæsthetic only. In case a general anæsthetic is given, he prefers ethyl bromide.

Abortive Treatment of Bubo.

CHRISTIAN (*Therapeutic Gazette*) states that he has obtained most satisfactory results from the use of an ointment of drugs alterative in character combined with speedy pressure obtained from the use of a spica bandage. The ointment to be used for this purpose is made up as follows:

R Ointment of mercury	...	} of each 2 trachms.
Ointment of Belladonna	...	
Ichthyol	...	
Lanolin	...	

If the bubo be seen early, no heat or redness being present, a piece of surgical lint spread with the ointment is applied directly to the swollen gland; over this is placed a piece of oiled silk of the same size. A large pad of cotton is next applied, and firm continuous pressure is obtained by the application of a wide spica-of-the-groin bandage, two bandages being employed. This treatment is applied every other day until, in cases in which it acts successfully, entire resolution of the bubo is accomplished—usually a period of ten days to two weeks. Twenty buboes have been treated in this manner during the past year in the Philadelphia Polyclinic. Of these twelve were aborted, eight of the cases following gonorrhoea, and four accompanying chancre. Of the eight cases in which abortive treatment failed, six were cases of tubercular adenitis. In these instances, however, it was early apparent that resolution would not occur. From a careful study of these cases, the author has become firmly impressed with the belief that fully 50% of buboes, other than tubercular, can be successfully aborted by the plan of treatment outlined.

Renal Calculus.

In the surgical treatment of renal calculus, the application of nephrolithotomy should be more extended, thereby restricting the necessity for nephrotomy or nephrectomy.

the mortality of both of which procedures is large in comparison with that of nephrolithotomy. The theory that a stone in one kidney, whether it be painful or not, reflects or transmits pain to the opposite kidney is quite unproved; the acceptance of such a theory may lead to dangerous plans of treatment. When pain, paroxysmal or continuous, appears on one side only, the kidney on the painful side should be explored. Nephrectomy for calculus conditions is rarely necessary, only in cases of calculus pyonephrosis, in which instance nephrotomy should at least be given a trial on account of the frequency of double calculus disease, and in no case should nephrectomy be performed until the opposite kidney has been freed of any obstructing stone. There are certain cases in which the presence of stone in the kidney causes reflected or transferred ovarian uterine or vesical pains and no symptom referable to the kidney itself; and again other cases, in which the symptoms are not characteristic of stone, but are of a nervous type, and sometimes associated with high fever. In no case of suspected calculus, no matter whether it be quiescent or give rise only to mild symptoms, should the expectant plan of treatment be recommended; there should be no more hesitancy about urging nephrolithotomy for renal calculus than lithotomy for vesical calculus. The mortality of both procedures is equally low.—*Phil. Med. Jour.*

Operations on Diabetic Patients.

GILBERTSLEEVE observes the following rules as to operations on diabetic patients. He does not operate on any patient suffering from diabetes without first explaining to the patient or some one the possibilities which might follow. He refuses to operate on elderly diabetic subjects for any simple affections, such as benign tumors, unless there is some special reason for operating. In painful, rapidly-spreading gangrene, which often occurs, and which is bound to cause death if left alone, he believes in prompt and high amputation. As a rule, wait until a line of demarcation forms; but in some cases, although the line has not formed, one can judge fairly well about how high it is going, and operate before the line has actually formed. The dry, comparatively painless gangrene, which often affects the toes in these patients, will often run its course, and the toes will be cast off. As a rule, such cases should be left alone.

Surgical Importance of Jaundice.

DR. ARCHIBALD MACLAREN'S conclusions are: (1) That slight attacks of jaundice are of comparatively little surgical importance, and that the majority of surgical diseases of the biliary passages have no jaundice at all; (2) that persistent jaundice, especially if progressive, is usually a contraindication to surgical measures; (3) that while, on the other hand, intermittent, deep jaundice, especially if associated with chills and a rise in temperature denotes the presence in the common duct of a stone that urgently demands removal.—*Medical News.*

Responsibility in Appendicitis.

C. MANSELL MOULLIN, in a recent communication to the *Lancet*, delivered himself of the following ultimatum: "If in a case of inflamed appendix thirty-six hours have passed without definite improvement having shown itself, the responsibility for the consequences must, it seems to me, rest with those who recommend that an operation should not be performed."

OBSTETRICS AND GYNECOLOGY.

Major Obstetrical Operations.

EDWARD REYNOLDS believes that: (1) When the conditions are such that the child can be delivered with anything like reasonable ease by forceps or version, one of these operations is preferable to any cutting operation. (2) When the mechanical relations would render forceps or version unusually difficult, forcible and prolonged, and when the mother is in the favorable class, the equally low maternal mortality and the far lower foetal mortality of the CÆSAREAN section render it the operation of choice. (3) When the mechanical conditions make the intrapelvic delivery of an intact child at terms impossible or unduly difficult, the great superiority of the CÆSAREAN section over the induction of premature labor in foetal mortality, and its extremely low maternal mortality, render it again the preferable operation. (4) When the ordinary operations fail, and the woman is in the unfavorable class, symphysiotomy is the operation of choice, and may be expected to lead to a favorable result for both mother and child in the great majority of cases, provided always that the degree of mechanical difficulty permits of its application. (5) When in the unfavorable class of cases, the degree of relative disproportion between head and pelvis is too great to admit of a safe symphysiotomy, craniotomy to the living child should be unhesitatingly chosen, since the maternal mortality of either form of the section, is so enormous, and since undoubtedly the life of the potential mother of many children is of more value than that of any unborn fetus.

Obstetrics from a Gynecological Standpoint.

C. E. CONGDON points out that one-half of gynecological operations are for the restoration of injuries or for the cure of the results of infection following parturition; many of them might be prevented. Antiseptic treatment in labour is to be replaced by aseptic. The same technique should be used in obstetrics as in a vaginal hysterectomy. All lacerations should be promptly repaired. Obstetricians ought not to allow lacerations to pass untreated because of a dread lest the announcement of them cause reflection upon their skill. Other important prophylactic measures are the regular examination of the urine in pregnancy, the systematic care of pregnant women, the unloading of the bowel with an enema before the second stage of labour, the shaving and scrubbing of the vulva and its closure with a sterilised napkin, and the interdiction of vaginal irrigation, medicated or non-medicated, and of self-examination. The physician ought to be regarded as the better judge of the competency of the nurse. Resumption of household duties depends not on the number of days that have elapsed after labour, but on uterine involution. The patient should be examined within two months after labour, and any defects then found should be repaired.—*Brit. Med. Jour.*

Pregnancy and Tuberculosis.

DR. SAMUEL BERNHEIM (*L'Union Médicale du Canada*) has written a very readable paper on this old subject. He rejects the formula of PETERS, according to which "tuberculous girls should not marry, women should not become pregnant, and mothers should not nurse." His views are epitomised as follows:—

1. Pregnancy does not necessarily provoke tuberculosis in predisposed subjects. Latent or ancient tuberculosis is not of necessity brought back to life because of a simple or single pregnancy. These chances are increased according to the early age of the marriage; hence late marriages, after protracted surveillance, are advised.

2. The more advanced the lesions, the worse the effect of pregnancy on tuberculosis.

8. Although a single pregnancy may exercise no deleterious influence on a *terrible* tuberculosis, multiple pregnancies are almost always disastrous, even in squable forms of phthisis.

4. The post-partum period is always dangerous, and should be carefully watched. Nursing should be prohibited.

5. If tuberculosis is aggravated in the early weeks of pregnancy, aseptic artificial abortion should be induced. This practice has long been followed by English and German accoucheurs.

6. Paternal tuberculosis exerts absolutely no influence in the progress of pregnancy.

7. Immediately after delivery the newly-born should be placed under the best hygienic surroundings and removed from the nidus of contagion, when it has every chance of becoming robust and free from tuberculous infection.

Favorable Influence of Pregnancy in Cases of Enteroptosis.

DR. HECTOR MAILLART (*Centralbl. f. Gyn.*) says:—After several years' observation he decides that, contrary to generally accepted views, the supervention of pregnancy in enteroptotic women serves a beneficial purpose. After a rather lengthy exposition of his reasons for arriving at this result, he lays down the following conclusions:—

1. Pregnancy in such cases increases intra-abdominal pressure and restores organs to their normal position after the uterus has reached a certain size.

2. Under these circumstances, pregnancy results in an improvement of digestive functions and of the general neurasthenic state, which is shown by an increase of 2½ to 6 kg. in weight between the onset of pregnancy and the termination of the puerperium.

3. Because of the treatment instituted (proper abdominal support, rational maternal mode of living during the nursing period, etc.) the cure continues, so that several more kilogrammes in weight are gained during the months following pregnancy.

4. Even in cases obstructed by albuminuria and neglect of treatment, the rational management of pregnancy will only result in good, even in those cases associated with constitutional neurasthenia.

Clamping of the Uterine Arteries in Myomata.

DR. GOULLIUND (Lyons) and DR. GOTTSCHALK (Berlin) (*La Revue Médicale*) are agreed as to the value of this method promulgated by MARTIN, of Chicago. According to GOTTSCHALK:—

1. Ligature per vaginam of the uterine artery and its branches in stages, after dissecting the bladder upwards, is an easy and safe operation. It can be employed in cases which would certainly succumb to radical intervention.

2. After this operation the uterine blood-supply depends upon the ovarian arteries and those supplying the round ligaments.

3. Hemorrhages are thus controlled and tumors reduced to small undiscoversable masses.

4. The nutrition of the uterus is not interfered with.

5. Discretion must be used in the choice of cases.

(a) The method should only be resorted to in cases of interstitial fibroids developed in the middle and lower segments of the uterus, less to those situated at the fundus, and not at all to intra-ligamentary growths.

(b) The closer the patient is to the menopause, the better the chances of success.

(c) The method is only applicable to tumors not exceeding in dimensions the female head.

(d) If the history gives reason to suspect omental adhesions, new sources of blood-supply are to be inferred, and success becomes problematical.

(e) The uterus should always be first dilated and curetted. Sub-mucous fibromata should be removed by excision; as they are not well controlled by the ligature operation.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Menstruation.

In the *Richmond Journal of Practice*, Geo. J. M. GELMANN considers what is normal menstruation.

He says that the menstrual period proper is characterized by an intensification of all vital energies, followed by a depression, which appears with the coming of the flow, and this is the phase ordinarily termed "menstruation." Under ideal conditions and in perfect health, the physiological status is such that this epoch, preceded by a day or two of heightened activity, is marked by a moderate lassitude, mental and physical, the flow persisting for from four to five days, and recurring at regular intervals of about 28 days. It is a period of heightened susceptibility, so sensitive a barometer that it quickly records any variation from the normal. Excitement, exertion or fatigue, mental or physical, are promptly indicated by variation in this function, and in our every-day life such disturbing elements constantly occur, so that conditions actually existing vary greatly from this ideal.

The average period of the average girl in average health presents very different features: regularity in 50 per cent. only; recurrence every 28 days in 30 per cent., varying most frequently from 26-42 days, 45 per cent., being over 28. Duration varies from two to seven days, averaging four to six.

From 66 to 70 per cent. suffer more or less, the number of sufferers varying, according to age and intensity of occupation, between 80 and 90 per cent. Lessened ability for exertion, mental or physical, is admitted by 60 per cent.; some few are habitually incapacitated from work, and 30 per cent. occasionally.

The functional condition of the girl in good health, under modern conditions of life, is by no means the ideal one; and in fact the functional health of the American girl, the coming mother of American men, is far from what it should be by right of inheritance and surroundings. This fact we must recognize, we must face. Upon physician and educator devolves the duty of study and correction of the evil. —*Charlotte Med. Jour.*

Some Remarks on the Pathology of Gastric Ulcer.

CHARLES J. NEPEAN LONBRIDGE says that experimental evidence confirms the view that ulceration of the stomach may depend on toxic causes, for ENRIQUEZ and HALLION, by injecting diphtheritic toxin under the skin of guinea-pigs, produced undoubted gastric ulcers. Moreover FLEXNER, in his researches upon toxalbumic intoxication, found small ulcers in the stomach on several occasions among other structural changes. The occurrence of such ulcers depends upon the fact that the stomach, among its other functions, includes that of an excretory organ. Exactly how the poison, in the course of its excretion by the gastric mucosa causes death of the cells with which it comes in contact is a wide matter for discussion. Such a condition, however, exists, although it is more of pathological interest than of clinical importance.—*Treatment.*

Nature of Infection: Contribution to the Knowledge of the Bacterium Coli.

DR. RADZIEVSKY (*Zeits. f. Hyg. u. Infek.*) says:—These papers deal with the subject of the methods by which

pathogenic bacteria produce their injurious effects in the animal organism. It has been generally assumed in recent years that as the bacteria grow they produce, either as secretions or as by-products of decomposition, certain toxic poisons which act directly upon the animal to produce the pathological symptoms. It has been held by some that in reality the toxic products are rather the result of death and destruction of the bacteria than of their active growth. In a long series of experiments, described more in detail in the second of the above papers, RADZINSKY has endeavoured to investigate this question. His most important conclusions are: (1) That a fatal infectious disease is to be divided into two stages. In the first stage the pathological effects are the results of the active multiplication of the bacteria. In the second stage, however, there begins a destruction of the micro-organisms, and the pathological effects upon the animal are produced by the toxic bodies arising from their destruction. (2) The animal that is invaded develops the power of killing and destroying the invading organisms. This power is due to materials present in the body fluids which are derived primarily from the living cells. The destruction of the bacteria takes place partly within the leucocytes, but chiefly outside of the cell bodies in the body fluids.

Gonococcus and its Toxin.

DR. J. DE CHRISTMAS (*Ann. d. l'Inst. Pasteur*) says:—Especially strong formation of gonococcus toxin is secured when the gonococcus is cultivated in a mixture of one part of strong veal bouillon (500 gms. meat to 250 water), without addition of salt or pepton, with three parts of human acetic fluid. After 20 days' cultivation the maximum of toxin formation is reached. The toxin is present in dissolved form. It is secreted by the living gonococci, and is not derived from dead or disintegrated bodies of gonococci; indeed, a similar toxin cannot be isolated from the latter.

The action of the toxin is most distinctly manifested after injection into the brain of guinea-pigs, in which it causes general prostration, weakness of the muscles, spasms and, in sufficient doses, death. If the guinea-pigs survive a cerebral injection of the toxin, they subsequently enjoy a high degree of resistance to further injections of the poison: subcutaneous injections also immunise against the toxin, but more slowly, and in much less degree than non-fatal doses of toxin injected into the brain. Goats, when injected with increasing doses of gonococcus toxin, produce a serum which paralyzes the action of the toxin upon guinea-pigs, no matter whether it is mixed with the toxin *in vitro* or injected separately into the brain or other organs of the animal. A few cubic centimetres of the toxin placed for several minutes in the *urethra* of man produces a suppurative urethritis in every way resembling gonorrhoea; the process soon heals, however.

The gonococcus toxin resists a temperature of 60 C. for one hour without alteration of its properties. On heating to 75 C. for 15 minutes it begins to disintegrate. It is precipitated by alcohol and by ammonium sulphate, but is not dialyzable.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Education of the Laity upon Sexual Matters. When shall they be taught, and to what extent.

DR. RUFUS B. HALL (*American Journal of Obstetrics*) advises systematic instruction on embryology, hygiene, anatomy, and physiology, including sexual physiology, during the last year in every high school in the country. If the sexes are taught separately, there need be no breach of propriety. Let the laity understand the meaning of pelvic inflammation in young wives, as we understand it; disseminate the knowledge to every youth that "clap" is more dangerous than syphilis, and great good will be accomplished at once. Such education would do more in ten years' time to correct the social evil, the evils of criminal abortion and of gonorrhoeal infection among young men and their wives, than has been done in the past hundred years.

Infant Feeding by Mothers.

JOHN J. HANLEY, in the *Medical Council* for November, makes a plea for the baby. The article is addressed to mothers who can and will not nurse, and to physicians who can restore an ancient and commendable practice by preaching it.

He says that mothers should suckle their young:—

- Because it is a natural obligation.
- Because it is a moral (religious) one.
- Because it is a pleasure.
- Because it is the most beautiful living picture in the world.
- Because it charms a man to see it.
- Because it is a sermon in tableau.
- Because of its refining and softening influence on the higher emotions.
- Because the child wants to.
- Because it has a right to.
- Because it is "open day and night."
- Because it is "always ready."
- Because it does not need to be sweetened or heated.
- Because it is the only ideal infant food.
- Because it is not a perfect substitute," but the "real thing."
- Because there is no perfect substitute.
- Because the baby likes it (not important).
- Because it does baby good.
- Because it does not make him "tired."
- Because it does not have to be sterilized.
- Because you do not have to outgel your brains about the proportions of milk-sugar and lime-water and other confusing things.
- Because you serve the State better.
- Because it is cheaper (you get it for nothing).
- Because you do not have to read chemical analysis of various celebrities on the containers, declaring the extraordinary skill and knowledge in producing such wonderful rubbish, as some milks are.
- Because you do not have to get out of bed at nights to get "the other" ready.
- Because you can "modify" it by your diet and hygiene.
- Because nature is a better chemist than you are.
- Because you do not have "to run" a chemical laboratory in the house.
- Because you will feel better yourself.
- Because the mutual dose will be greater.
- Because your husband would prefer it (or ought to).

Because all true mothers do it.

Because you will show good example to other women.

Because the baby will be physically stronger to fight for its existence, both in health and in sickness.

Because it is the same as mother and grandma "used to make," a strong recommendation daily observed.—*Charlotte Med. Jour.*

Falsely charging that one has Leprosy.

To falsely say of one that he has leprosy is slander, and to publish it by writing is a libel. Mr. Justice GAYNOR holds, in *Simpson vs. Press Publishing Company*, at a special term of the Supreme Court of New York, Kings County. Nor does he consider that it makes any difference in this regard if the progress of science has revealed, as was contended in this case, that leprosy was erroneously classed as infectious or contagious. It remains a term of slander, he holds, until the law is changed. Every disease that is infectious or contagious is not embraced within the definition of slander. The bane in the charge of leprosy which made the courts classify it as slanderous was its tendency to cause one to be shunned and excluded from society, and that still exists. But the definition of libel is much broader than that of slander, and any false publication by writing, which exposes one to ridicule, hatred, contempt or obloquy, or causes him to be shunned or avoided, is a libel in and of itself, though if spoken it might be no slander. Hence, to falsely charge one in writing with having any repulsive disease or condition which would necessarily cause him to be shunned or avoided, the judge says, would be libel; but it would not be a slander if spoken, unless it was one of the diseases embraced within the definition of slander. Moreover, the point that the complaint was insufficient for not stating that leprosy is contagious or infectious, he holds, was not well taken, as such an allegation is neither usual nor necessary, any more than to formally plead that to steal is a crime, for the court takes notice of what words constitute slander *per se*.—*Jour. Amer. Med. Assoc.*

Atropin Poisoning.

THIS experimental investigation of REICHERT's gives the different stages of atropin poisoning, particularly as observed in the effects on the respiratory and vasomotor centres. The whole shows the extraordinary power of recovery of the system from the action of atropin. In one experiment recorded, 1.5 grams of atropin, or over six times the minimum fatal dose, was given in divided doses. Two hours after the first injection feeble respiratory movement occurred, there was a return of reflexes, the pulse-rate was higher than immediately after the first injection, and arterial pressure had increased about fourfold. Fifteen minutes later respiratory movements were sufficiently frequent and deep to dispense with artificial respiration. In the second experiment over seven times the minimum fatal dose was given, and the same strong general tendencies were manifest. Among other actions, the effects of large doses on the motor and sensory nerves are positive, both being completely paralysed during the second period. A curious fact shown by these experiments was that, while the motor fibres are absolutely inexcitable to faradic stimulus, they retain their conductivity. These experiments have an important bearing on the treatment of poisoning in man, as they show that death is due to paralysis of the respiratory centre; that the centre has great recuperative power; and that, if artificial respiration be properly practised, the respiratory centre recovers its activity, which is accompanied by general and marked improvement of the other depressed states. In man it seems that atropin poisoning should be readily treated with artificial respiration, persistently and intelligently practised, as by LARONDE's method, accompanied by such other treatment as the indications suggest.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

Cold as a Therapeutic Agent.

REES (*St. Paul Medical Journal*) says the use of cold in the treatment of typhoid fever, appendicitis, endocarditis, pericarditis, cerebral lesions, and acute articular rheumatism is a well-recognized procedure. But its use in pneumonia is not so general. The author has used it in seven cases of pneumonia, applying an icebag to the affected side, with satisfactory results. He quotes a number of men high in the profession who use this form of treatment for pneumonia. It tends (1) to relieve the pain; (2) to relieve the general restlessness and delirium; (3) to act as a sedative to the heart and respiration; (4) through the vasomotor mechanism to limit and relieve the congestion in the affected lung; (5) to control the general temperature. When the patient is seen early, one or more icebags should be placed over the affected area. During the preliminary stage of congestion the application should be practically continuous, though it is advised to remove the icebag for a few minutes every hour to allow the cutaneous vessels to regain their elasticity. When consolidation has set in, the icebags should be continued, though their number may be reduced in most cases, and they should also be removed every hour for a few minutes and the cutaneous surface briskly rubbed with the hand. If there is no pleuritic or pericarditic pain, and there seems to be no tendency to further spread of the pneumonia into adjacent lobes, the icebags may then be transferred to the abdomen to combat a high temperature if present. The cold, if applied over the solar plexus, exerts a powerful influence in controlling temperature in this vascular area. During gray hepatization and resolution the icebag is removed and only the pneumonia jacket is worn. The contraindications to the use of cold in pneumonia are practically the same as in typhoid fever.

Treatment of Acute Articular Rheumatism by Massage with Petroleum.

HECTOR SARAFIDIS concludes that massage with petroleum is the best treatment for acute articular rheumatism, for the following reasons: (1) The treatment demands very little expense, the oil being very cheap. (2) The treatment can be used as well in the country, far from a pharmacy, as in the city. (3) During the treatment, the patient is not surfeited with drugs, as the petroleum is sufficient to cure the rheumatism. (4) The treatment by petroleum can be used by everybody, for it can never cause any trouble. (5) Its application lowers the temperature. (6) Petroleum can be used on those suffering from BRIGHT'S disease. It is well known, that in the course of an interstitial nephritis it is not possible to administer salicylate of sodium; the same observation must be applied to pregnant women.—*Revue de Therapeutique.*

Uræmia and Uræmic Convulsions.

IN uræmia and uræmic convulsions we have the right to use the more powerful drugs, which we should always fear to employ in the milder conditions. Croton oil, elaterium, murate of pilocarpine, jaborandi, by enema or suppositories, atropine, and strychnine in oedema of the lungs, chloral hydrate, chloroform, and even morphine in convulsions. Morphine should never be used except in the worst and most violent stages of the convulsions of acute nephritis.—*DR. L. G. LE BRUN, Med. and Surg. Jour.*

Inhalation of Creosote in Whooping-Cough.

J. E. GODSON, M.R.C.S., L.R.C.P., (*British Medical Journal*), sent to a number of general practitioners a circular containing queries on the treatment of whooping-cough. The replies show that the drugs in use have the following relative popularity: Belladonna, 32 per cent.; carbolic acid, 28; bromides, 20; creosote, 12; antipyrin, 6; opium (paragoric) 2. None of the answers were enthusiastic, except those referring to creosote, which was strongly praised. It appears to have little effect when given internally, and must be used as a vapour. The results are better from continuous than from intermittent inhalation. The simplest and best method is to hang up in the sick room a cloth sprinkled with the drug. The air becomes highly impregnated. The inhalation appears to be free from danger, except when the chest is full of moist sounds. Then its effect should be carefully watched.

The writer finds the following treatment the most satisfactory: Give at once continuous inhalations of creosote. Clear the lungs as much as possible of bronchitis before administering antispasmodics. In broncho-pneumonia, however, belladonna appears at once to do good. When the chest is fairly clear, and the circulation good, antipyrin may be given. Expectorants should be combined with the antipyrin. Good air, warm clothing, light and wholesome food are necessary. He has followed these rules for the last six years, and is satisfied with the results. The average time required for cure was 19.8 days, but these figures in no way represent the benefit derived from the creosote treatment. In every case the diminution in the number of paroxysms was so immediate that the patients willingly put up with the inconvenience of the smell.

For Thinness.

Avoid condiments, acids, sour fruits, salads, cabbage, coffee, turnips, sour wines, hot drinks, tobacco; take fatty meats and fatty foods, the crust of bread, pastry, beans, peas, nuts, sugars, honey, water; reside in the country and secure rest of mind as well as of body; take FOWLER'S solution in gradually increasing dose up to twenty drops.—LE ROY.

For Acute Alcoholism.

R Tinct. capsici.
Tinct. zingiberis aa ʒi.
Tinct. valerian. ammon.
Tinct. gentiane co aa ʒi.

M. S. Desertspoonful in a cup of hot water three or more times a day.—GERHARD.

Cardiac Stimulant.

R Caffein
Sod. salicyl aa 1-15
Spartein sulph. 0-40
Ammon. Acetat 1
Aq. destill 50

M. S. ʒi. every half hour p. r. n.

R Caffeine
Sod. salicyl aa 2-250
Spartein sulph. 0-50
Aq. dest q.s. ad. 10 c.c.

M. S. Inject grt. xx. subcutaneously.—CAPTAN.

Correspondence.**OFFICIAL "SPORT" IN INDIA RESPONSIBLE FOR LOSS OF HUMAN LIVES BY WILD ANIMALS.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—In a recent number of the *Indian Medical Record* (January 16th, 1901), under the heading of "Death from Wild Animals and Snakes in India," it is shown that 2,966 human beings, and nearly one hundred thousand head of cattle, were killed by wild beasts and snakes, of which total all but 9,449 were due to animals; and that in the fierce battle between man and the lower orders of creation in India, the balance of victory continues to incline towards the beasts.

Victory is usually with the strong, and in India a legion of wild beasts naturally gains the victory when protected by the privileged classes for their own selfish ends.

Rewards are offered for the destruction of wild beasts on one hand, and the most elaborate rules for their protection are formulated on the other.

The methods of Indian administration are to the onlooker marvellous and incomprehensible, till he gets sufficiently behind the scenes to know that the intentions of the Government of India and the British people are systematically evaded by local administrations for the benefit of local administrators.

Of all Europeans in India, only the "heaven-born Indian Civilian" has apparently failed to see that the Forest Department fire protection rules, by the protection they afford wild animals, weigh heavily on the Indian cultivator; that under cover of these rules, dangerous wild animals are protected during the only season they can easily be destroyed, and that other wild animals are also protected, cultivators are ruined, and cultivation generally retarded.

Why this lack of perception?

Anyone with a knowledge of district life in India is aware that Government forests harbour herds of pigs and other animals which uproot and destroy the fields near forests, and that in certain districts they are so numerous that many villages which were inhabited when the last settlement was made are now deserted, and that the reason for this desertion is depredations by wild animals, causing destruction to both fields and cattle.

The obvious remedy would be the issue of gun licenses for the destruction of game; but this would clash with class interests, hence so patent a remedy is not adopted.

on the contrary, every possible excuse is taken advantage of to refuse a gun license, and it is an understood thing that the cultivator must not kill the animal that destroys his field, or his cow: this animal has been reserved for the sport of the privileged official classes!

To such an extent has this unwritten law gained mastery of the official mind, that certain Collectors are known to have refused to license any gun more than a foot or so in length, which is sufficient to frighten away the animals which habitually prey on the cattle and fields of the peasant; the latter's right to destroy the life of a beast which has killed his cow or eaten his crop is not recognized!

This is where the judicious official pressure we well know the District Officer exercises is brought into play, and is so thoroughly recognized that people hard set to make a living will not waste time in complaining, and the wealthy landlord maintains silence; *he is more open to judicious official pressure than his tenants, and he knows it.*

Would it not be possible for some wealthy non-official not dependent on agriculture (or the I. M. A.) to move in this matter in the interests of the Indian cultivator.

If publicity were given to the great loss of life and property due to the action of local administrations, it is improbable that the Government of India would tolerate the existing state of things.

In the N.-W. P. and Oudh special rules have recently been formulated for the protection of wild animals. Officially these rules appear under No. ⁵²²_{XIV-381 A} of 1900 (Notification, Forest Department, dated 9th July 1900); they are more generally known as "*the Civil Service Shooting Rules*," as they appear to an unbiassed reader to have been drawn up in the interests of the Indian Civilian, without a thought of the results to the people or the feelings of the services affronted. Briefly stated, the rules reserve the shooting in Government forests for the use and benefit of the Civil Service; the policeman is let in for obvious reasons, at least reasons which are obvious to landlords, tenants and the excluded District Officers.

In spite of the appalling number of deaths, both of human beings and cattle, due in a great measure to the harbour afforded by Government forests to wild beasts, the administration of the N.-W.P. and Oudh has thought fit to absolutely prohibit shooting in Government forests without a pass. The rules purport to grant exemption to officers employed in districts in which forests are situated, or whose duties take them into the neighbourhood of forests—as a matter of fact they do nothing of the kind—they merely permit gazetted officers other than Covenanted Civilians and the District Superintendent of Police to retain the advantages enjoyed by the general public prior to the publication of the present rules. Apparently the rules were framed to preserve wild beasts in India: if this were there only object, they would be harsh, unjust, thoughtless and unsympathetic, considering the lamentable loss of life and property, when judged from the humanitarian stand-point; but as they were obviously framed for the benefit of the Indian

Civilian, they are iniquitous and unworthy any enlightened and Christian Government.

No reasoning being, other than an Indian Civilian, can say why an Indian Civilian and District Superintendent of Police should shoot in a Government forest without a license, and that all others, including gazetted officers of the district, should be excluded at the only season when carnivora can be hunted with a reasonable chance of success.

The want of courtesy and consideration shown by the Government of the N.-W.P. and Oudh to gazetted officers of the Provincial Civil Service, Public Works, Medical and Survey Departments, and unofficial Europeans, by the recent shooting rules, is a specimen of how they are usually treated, and the honesty of an administration which provides *gratis* sport and society for a privileged class from the public purse requires no comment.

I quote in full the note to Rule 6, which exempts the Covenanted Civilian, the District Superintendent of Police and their friends from the operation of the rules, also paras. 2 and 7 of Appendix A of the rules:—

"Note—Commissioners of Divisions, Collectors of districts, Joint and Assistant Magistrates, District Superintendents of Police, Gazetted Forest Officers, and persons not exceeding three in number accompanying them, are exempted from the necessity of taking out permits under these rules, and from the payment of fees prescribed in Appendix A."

"Para. 2—In order to cover any extra expenditure involved by special arrangements for the safety of the forests, the following fees will be charged:—

"For a party not exceeding two sportsmen for a trip not exceeding fifteen days, Re. 8 0

"For every additional sportsman for a trip not exceeding fifteen days " 4 0

"For every elephant with the party, per diem. .. 1 0

"When fodder from the forests is used by the elephants, the following further fees are charged:—

"If tree fodder is used—Re. 1 per elephant per day. If grass fodder is used—8 annas per elephant per day; but no fodder charge is made for three elephants for each sportsman up to a maximum of six elephants for each party."

"Para. 7—Persons exempted under Rule 6 (note) shall give fifteen days' notice to the Divisional Forest Officer of their intention to shoot in any closed forest."

As an example of the consideration shown by Civilians for the interests of the Indian poor, when they clash with their own interests, they could scarcely be equalled.

What opinion can an unbiassed critic form of a class of men who can thus make rules for the benefit of their own service and of the friends and acquaintances of members of their own service at the expense of the public purse on the one hand, and the unfortunate cultivator on the other. Either the fire protection rules for Government forests are a huge farce, instituted for the purpose of excluding (in the interests of the Civil

Service) Englishmen living in India from them, or the Government of the N. W. P. and Oudh has shown itself sadly wanting in perception when it framed the present shooting rules.

As an instance of the trend of thought of the Covenanted Civilian, the rules are excellent; they do not attempt to disguise what is already so fully recognized, that there is one rule for the Civilian and another for all other services, and that the unofficial Englishman has no rights at all!!

It would seem the time has come when Local Governments should have at their head independent English gentlemen such as rule at Madras and Bombay, and that the well-being of the people of India should no longer be left to the uncontrolled authority of men so blind that they cannot see the iniquity of class legislation.

Who in England would believe that any class of men would legislate for the protection of dangerous wild animals for their personal amusement, when in one year 2,986 of their fellow-beings had been destroyed by wild beasts, whose chief harbours are Government forests, and that they would refuse, for selfish reasons, the protection of firearms to people liable to be done to death by wild beasts.

Yours, &c.,

"HUMANITARIAN."

CIVIL ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The enclosed letter, which appeared in the *Pioneer* of March 3rd, might perhaps be of some interest to your readers, as it exposes one of the many jobberies which are frequently being perpetrated in the Civil Medical Department, and to which reference has been made in my letters re Grievances of Civil Assistant Surgeons:—

"The charge of the Colvin Hospital, Allahabad, is one of the most coveted Assistant Surgeoncies in these provinces. Its late incumbent, Assistant Surgeon M. N. OHDEKAR (now Civil Surgeon of Barabanki), was, taking everything into consideration, admittedly the ablest Assistant Surgeon in the N.-W.P. and Oudh. His successor, Assistant Surgeon R. N. DE, was a senior man. The present incumbent, Assistant Surgeon P. N. BONARJI, is a third-grade officer with only four years' service and no special qualifications whatsoever. To give him the post over the heads of so many of his seniors abler than he in every respect, and having undeniably stronger claims, is simply to cut their throats. There are men—his seniors—with British qualifications, men who on several occasions have satisfactorily officiated as Civil Surgeons, men who have been specially mentioned in annual reports for their professional abilities, men who have done meritorious famine and plague service, men who for years have held more responsible posts than he has, but they are rotting in bad stations. It is stated that he got his appointment through influence. If so, the more the pity. His Honour was recently very hard on an Assistant Surgeon who objected to being recalled from leave to be sent to the Central Provinces for famine

duty. Does His Honour know that men who went cheerfully and suffered considerable pecuniary loss and personal inconvenience (for they only got a paltry allowance of Rs. 60 per mensem, while they had to lose free quarters and private practice and undergo the extra expenditure caused by (1) constant camp life; (2) having to live in a famine-stricken province where everything was ever so much dearer; and (3) to keep up two establishments because it was out of the question to take one's family with one's self, as the deputation was only for about a year, and travelling allowance for family is not admissible in the case of gazetted officers) have on return, after having done their work creditably, been posted to bad stations, while men like Assistant Surgeon P. W. BONARJI, who have all along been enjoying the delights of sanatoria like Naini Tal and Chunar, are getting lucrative places. In other departments of Government, officers receive special promotion for meritorious famine and plague service, but Assistant Surgeons must pass the septennial examination, however hard and creditably they may work, before they can expect promotion. When there is no prospect of getting even a good station after undergoing the hardships of famine duty, what wonder that they wish to avoid being deputed to it, and when sent against their wishes, they work apathetically and wish to be rid of it as soon as possible. Of course ideas of duty, self-sacrifice, &c., are all very good; but "the misers and the bairns" have to be fed and the bill-wallahs have absolutely no consideration for the fact that delay in payment is due to scarcity of cash, brought on by deputation to philanthropic famine work.

It was at first thought that Assistant Surgeon BONARJI's appointment was only for a short time, but in the *Gazette* there is no mention of its being a temporary measure. Usually, when it is intended to do any particular officer a favour at the cost of others, the practice is to *gazette* the former's appointment "as a temporary measure," so that the latter may not object even if they wanted to, and the "temporary" measure is quietly allowed to become a permanent one; but in this case even this clever plan which, by the way, has now become quite transparent, has not been resorted to, and the slur on Assistant Surgeon BONARJI's seniors is a public and pointed one. Ever since Government delegated its powers as regards the postings, transfers, &c., of Assistant Surgeons to the Inspector-General of Civil Hospitals, jobberies of this sort have been on the increase, because Inspectors-General in turn delegated these powers to all intents and purposes, if not in so many words, to their clerks who, as a rule, as everybody is aware, are people who know how to use their opportunities. Colonel HUTTON, the present Inspector-General, has the reputation of being an officer who looks into everything himself as far as possible, but hard-worked as he is, he must depend to a certain extent upon his clerks, and the result can easily be imagined. Suggestions are made and information is given or suppressed, according as the officer concerned is in the good graces of these worthies or not, and the Inspector-General cannot help being misled. Anyone who cares to inquire impartially will hear ever so many interesting stories from Assistant Surgeons and Hospital Assistants regarding their transfers and postings. If Sir ARTHUR and Colonel HUTTON

would call for a return in the following form and say that the one submitted is correct, they would be able to see things themselves :—

Names of stations in order of size, importance, and average private practice.	Names of Assistant Surgeons in charge: qualifications: length of service: remarks as to :— 1. General abilities. 2. Special service, if any, and how performed. 3. Special qualifications, etc. 4. Other points, if any.	In cases in which any officer has got a better appointment than his senior, full details (with original files of cases, if any) as to why the latter was superseded.
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Copies of this return should also be circulated among Assistant Surgeons for any representations they may have to submit."

Yours, &c.,
TOMTIT, M.B.

GANGADIN VS. "INDIAN MEDICAL RECORD."

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The announcement in the *Record* that a person named GANGADIN had filed a suit against the Editor for a very large sum of money for defamation has come as a surprise to most readers of the *Record*, for many reasons which, perhaps, as the case is now *sub judice*, may be left unenumerated, but the necessary enumeration of which will undoubtedly greatly help the case of the Editor, who rightly deserves the sympathy and support of every one of his readers for his staunch and fearless advocacy of the cause of the local medical profession and of every genuine member of it. However, there seems to me to be one way in aiding the Editor's case in his fight for truth and right, and that is that every reader who can help him with evidence to support his case should not hesitate to do so. It seems necessary to send to the Editor copies of the newspapers in which the advertisements by GANGADIN appeared; also the hand-bill and fly-leaf advertisements which were scattered abroad by this person. In a case for damages, the personal history of the claimant is of importance to his opponent, and so the Editor's friends in Dinapore, Lahore, Hyderabad and Amritsar can aid him very materially in this matter. It makes no difference how long it takes for the case to be called up for trial, the Editor should have all this help at once.

Yours, &c.,
L. M. S., LAHORE.

(We beg to thank the many of our readers who have sent us letters expressive of their sympathy and promised help. We thank the present writer, and make no pretence to understating the usefulness of his suggestions. We mean to see the case through to the bitter end, so that justice shall not fall to our profession. It may be two years before the case is called up for trial, but the suggestions made by our correspondent may, with advantage, be carried out at once.—ED., I. M. R.)

BOOK REVIEW.

THE BRITISH MEDICAL JOURNAL'S REVIEW OF AN INDIAN BOOK.

AN INTRODUCTION TO MATERIA MEDICA FOR INDIA, INCLUDING THE PREPARATIONS OF THE "BRITISH PHARMACOPOEIA, 1898."

By C. F. Poynder, M.B., C.M., and D. Hooper, F.R.S., F.L.S., Calcutta: Thacker Spink and Co., 1901. (Demy 8vo., pp. 356. Rs. 6.)

The scope of this little volume is very accurately defined in the title page and in the preface. It is intended for medical students and for general practitioners in British India, and in order to meet their requirements, the authors have included the essentials of the *British Pharmacopoeia*, together with references to about 350 of the better known Indian drugs, many of which are regarded as capable of being used as substitutes for the official drugs of the *British Pharmacopoeia*. It is to be regretted that publication was not delayed a little to permit the inclusion of the material contained in the recent Indian and Colonial *Addendum* to the *British Pharmacopoeia*, which was issued in the same month; and, in view of this *Addendum*, it is a pity to find that the *Pharmacopoeia of India* of 1868 is referred to frequently with what is now an inappropriate abbreviation, "*P.I.*" It is true that the plants recently recognised for use in India are mentioned, but many of their official preparations are not included, in others the proportions of the ingredients differ from the official standard, and the doses also do not always agree. These are blemishes which can easily be removed in a new edition, but meanwhile it is to be feared that some confusion must result to those who go to this book, expecting to find therein the ordinary information relating to the new authority. This warning is the more urgently called for, since, in the *Indian Medical Gazette* (February, 1901), the publication of the official *Addendum* to the *British Pharmacopoeia* is said to render the use of this book "an absolute necessity to the practitioner," and accordingly it seems well to indicate the desirability of careful comparison.

Government Medical Gazettes.

BENGAL.

Amt. Surgn. Khirode Chandra Ghosh is allowed to continue on special plague duty in the Howrah dist.

Amt. Surgn. Baroda Kanta Roy, offic. at the Muzaffarpur Disp., is confirmed in that appt.

Amt. Surgn. Satya Saran Mitra, offic. as Resident Asst. Surgn. at the Howrah Gen. Hosp., is confirmed in that appt.

Senior Asst. Surgn. Brojo Nath Chowdhury held med. ch. of the Pilgrim Camp at Chittagong from the 30th Nov. 1900 to the 17th Feb. 1901.

Amt. Surgn. Sarat Chandra Bar is apptd. to do duty in connection with anti-cholera inoculation work at Purnia during the absence, on leave, of Asst. Surgn. Jamini Kanta Mukherjee.

Amt. Surgn. Jamini Kanta Mukherjee, on anti-cholera inoculation work at Purnia, is allowed privilege leave for three months.

Asst. Surg. Sarat Chandra Sur appt. duty at the Med. Coll. Hosp., Calcutta, from the 23rd Feb. to the 17th March 1901.

Mily. Asst. Surg. T. H. Bonnar is allowed privilege leave for one month in extension of the leave granted him on the 19th Feb. 1901.

Maj. J. D. Jordan, I.M.S., Offg. Civil Surgn. of Nadia, is allowed privilege leave for 42 days, from the date on which he may have availed himself of it.

The services of Mty. Asst. Surgn. J. A. F. Harvey are placed, from the 27th Nov. 1900, at the disposal of the Magistrate of Gaya, temply. for appt. as Special Health Officer of the Gaya Municipality.

The services of Mily. Asst. Surgn. R. Sharples are placed from the 22nd Nov. 1900, at the disposal of the Magistrate of Saran temply. for appt. as Asst. Health Officer of the Chapra Municipality.

Mily. Asst. Surgn. W. J. P. Martin is apptd., from the 21st Nov. 1900, to be an Inspg. Med. Offr., Chausa Plague Camp.

Mily. Asst. Surgn. H. Mansfield acted as an Inspg. Med. Offr., Chausa Plague Camp, from the 22nd Nov. 1900 to the 4th Jan. 1901.

Mty. Asst. Surgn. H. Mansfield is apptd., from the 8th Jan. 1901, to be the Med. Offr. in ch. of the Chausa Plague Camp.

Mily. Asst. Surgn. T. H. Bonnar acted as Med. Offr. in ch. of the Chausa Plague Camp from the 18th Nov. 1900 to the 5th Jan. 1901.

PUNJAB.

Hosp. Asst. Feroze-ud-din was apptd. to do gen. duty at Lahore on the 18th Feb. 1901.

On being relieved of the ch. of the Barwala Dispy., Hissar Dist., Hosp. Asst. Brij Lal was transferred to the Mung Dispy., Gujrat Dist., which he joined on the 9th Feb. 1901 relieving Hosp. Asst. Ibrahim.

Hosp. Asst. Ibrahim from the Mung Dispy., Gujrat Dist. to Lahore for gen. duty from the 17th Feb. 1901.

Hosp. Asst. Zulfiar resumed ch. of the Ajnala Dispy., Amritsar Dist. on the 16th Feb. 1901, relieving Hosp. Asst. Muhammed Shaffi, apptd. to do gen. duty at Amritsar on the 16th Feb. 1901.

The following exchange of appointments in the Hissar Dist. was made in the interests of the public service:—

Asst. Surgn. Ramji Lal from the Hissar to the Bhiwani Dispy.—31st Jan. 1901.

Asst. Surgn. Brij Lal from the Bhiwani to the Hissar Dispy.—1st Feb. 1901.

Asst. Surgn. Brij Lal reverted to the ch. of the Bhiwani Dispy.—9th Feb. 1901.

Asst. Surgn. Lachman Das II, Wazirabad Dispy., Gujranwala Dist. has obtained 88 days' privilege leave, and was relieved of his duties on the 16th Feb. 1901 by Tempy. Asst. Surgn. Rup Narain, transferred from Delhi.

The following Hosp. Assts. were placed on cholera duty in the Hissar Dist. from and to the dates noted:—

Hosp. Asst. Gurmukh Rai,—from the 23rd March up to the 12th Sept. 1900.

Hosp. Asst. Jai Singh,—from the 25th March up to the 12th Sept. 1900.

Hosp. Asst. Bhagat Ram, Narai Canal Dispy., Peshawar Dist., has obtained two months' privilege leave, and was relieved of his duties on the 25th Jan. 1901 by Hosp. Asst. Rup Lal, transferred from Peshawar.

Hosp. Asst. Muhammad Hussain, on plague duty, Hoshiarpur Dist. to the Gurdaspur and Sialkot Dist. for plague duty, from the 21st Feb. 1901.

On being relieved of his duties at the Pilgrim Camp, Multan, Hosp. Asst. Ali Ahmad was apptd. to do gen. duty at that Stn. on the 20th Feb. 1901.

Hosp. Asst. Ramjas, Police Hosp., Dera Ghazi Khan, held ch. of the Jail Hosp. in addn. to his own duties, from the 18th Jan. to the 15th Feb. 1901 during the tempy. deputation of Hosp. Asst. Bhana Lal to Bikaner.

Asst. Surgn. Jagendra Nath Biswas resumed ch. of the duties of Med. Offr. in ch. of the Native Est. attached to the Govt. of India Secretariate, Simla, on the 7th March 1901.

On being relieved of the tempy. ch. of the Hoshiarpur Civil Hosp., Asst. Surgn. Hardial Singh reverted to his substantive appt. as Asst. to the Civil Surgn. Delhi, on the 27th Feb. 1901, relieving Asst. Surgn. Jhangli Ram, who was granted three months' privilege leave from the same date.

BURMA.

Hosp. Asst. Daulat Ram, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 1st March 1901, as a supy.

Hosp. Asst. V. Narasimulu Naidu made over ch. of duties at the Police Hosp., Falam, Chin Hills, on the 11th Jan. 1901, and assumed ch. at the Civil Hosp., Falam, Chin Hills, on the same date.

Hosp. Asst. M. L. Subba Iyer assumed ch. at the Gen. Hosp., Rangoon, on the 31st Jan. 1901 as a supy.

Hosp. Asst. Abdus Shakur, on proceeding on two months' privilege leave, relinquished ch. at the Police Hosp., Rangoon, on the 15th Feb. 1901.

Hosp. Asst. Bishen Lal relinquished ch. at the Gen. Hosp., Rangoon, on the 14th Feb. 1901, and assumed ch. at the Police Hosp., Rangoon, on the 15th Feb. 1901.

Hosp. Asst. Shaik Allah Bakha, on transfer to Pakokku, relinquished ch. at the Gen. Hosp., Mandalay, on the 14th Feb. 1901.

Hosp. Asst. Kishore Mohun Majumdar relinquished ch. at the Police Hosp., Monywa, Lower Chindwin dist., on the 3rd Feb. 1901, and assumed ch. at the Outpost Hosp., Yinmabin, Lower Chindwin dist., on the 5th Feb. 1901.

Hosp. Asst. Kishore Mohun Majumdar assumed ch. of addnl. duties at the Civil Dispy., Yinmabin, Lower Chindwin dist., on the 5th Feb. 1901.

Hosp. Asst. K. Govindan assumed ch. of additional duties on the Ry. line on the 5th Feb. 1901.

Hosp. Asst. R. M. Chakravarty made over ch. of his duties at the Gen. Hosp., Rangoon, on the 19th Feb. 1901, and assumed ch. at the Civil Hosp., Thayetmyo, on the 22nd Feb. 1901.

Hosp. Asst. K. G. Maricanal Naidu made over ch. of duties at the Ry. Dispy., Ywataung, on the 18th Feb. 1901, and assumed ch. at the Civil Hosp., Myinmu, Sagaing dist., on the 14th Feb. 1901.

Hosp. Asst. Jeet Singh made over ch. of his duties at the Civil Hosp., Sagaing, on the 18th Feb. 1901, and assumed ch. at the Ry. Dispy., Ywataung, Sagaing dist., on the 18th Feb. 1901.

Hosp. Asst. Ram Lal Sircar, on proceeding on one month's leave, relinquished ch. at the Civil Hosp., Thayetmyo, on the 26th Feb. 1901.

Hosp. Asst. Radha Mohan Chakravarty relinquished ch. at the Civil Hosp., Thayetmyo, on the 25th Feb. 1901, and assumed ch. at the Civil Dispy., Minhia, Thayetmyo dist., on the 27th Feb. 1901.

Hosp. Asst. Josiah Masalia Money relinquished ch. at the Civil Dispy., Minhia, Thayetmyo dist., on the 25th Feb. 1901, and assumed ch. at the Civil Hosp., Thayetmyo, on the 26th Feb. 1901.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

BOWAN.—At Fort Allahabad, on the 2nd April 1901, the wife of Major H. D. Rowan, R.A.M.C., of a daughter.

DEATH. IN MEMORIAM.

RODRIGUES.—In ever loving and sad memory of our darling Jim, late Military Medical student, who departed this life on 7th April 1900. Aged years, 6 months, 9 days.

ORIGINAL ARTICLES.

ON THE PROGNOSIS OF ACUTE DISEASE.

By R. HINGSTON FOX, M.D., M.R.C.P. (LOND.),

Physician, St. Luke's Mission Dispensary, London.

ON what does the recovery from acute disease depend? It is difficult to answer this question without distinguishing between different kinds of disease. Thus, if the disorder be one that runs a definite course, and tends to pass away, like most of the acute infectious fevers, recovery may be said to depend upon keeping the patient alive during the period of the disease. Some acute diseases, on the other hand, progress indefinitely, and destroy the tissues of the body. Acute generalised tuberculosis is a disease of this kind. Perhaps, under some conceivable circumstances, even this disease might show a definite course and tend to recovery; but the conditions of the human body, as we are acquainted with it, do not admit of this.

From the clinical standpoint, we might call those diseases which naturally tend to recovery, benign, and those which progress indefinitely, malignant. In seeking to learn on what recovery depends in a given case, we must first ask whether the disorder can be allotted to one of these classes, or, in other words, what is its natural termination. In many instances this is easily decided, as in the infective diseases already alluded to. I would be disposed to put all catarrhal diseases in the benign class, and all inflammations of organs due to a sporadic cause, such as accident or chill; but if the inflammation is due to a constant cause, such as pre-existing tubercle, or cancer, or a poison circulating in the blood, it will generally belong to the opposite class. There will, however, be many diseases which cannot certainly be allotted to either class, but which sometimes belong to one and sometimes to the other, according to the reaction of the individual subject.

Benign acute disease.—Let us take first cases of benign acute disease, in which the natural tendency is towards recovery, and in which our efforts are directed to keep the patient alive until the disease has subsided. Life depends more obviously upon the maintenance of the heart's action than upon that of any other organ, and it is sometimes said that a man lives as long as his left ventricle. At the finish, when the crisis of the struggle for life comes in a severe and dangerous case, the heart's action is certainly the chief criterion of his condition and chances. But surely we must go behind the heart, and far less must we be satisfied with the phrase, "failure of heart's action," now so often used by the public in relation to the cause of death. For on what does the heart function depend? Upon the integrity of heart muscle and of nerve centres; and these depend upon nutrition; so that we get down to the nutritive condition, to the state of blood and tissues, as the really dominant factor in the maintenance of life. I am leaving aside questions of mechanical interference with the circulation which complicate the problem in many cases. I am supposing that we are face to face with a severe case of

typhoid fever in the fourth week, or of acute pneumonia about the seventh or eighth day; there is a high temperature, a rapid pulse of low tension, a dry tongue inclining to a brown hue, some delirium and insomnia. But there are, we will suppose, no symptoms threatening life, in lung, or bowel, or elsewhere, besides the asthenia, and our query is, will this patient live through the attack? If he survives another two or three days, in all probability he will recover. The survival apparently depends on the strength of the heart. Essentially, as I have shown, it depends upon nutrition. And nutrition brings us to digestion and assimilation, by which alone the body can be nourished. So that it may be truer to say in some of these fever cases that "a man lives as long as his stomach;" and digestive power is found to be a principal factor in the recovery from acute disease. It is singular that this lesson should be learned so late in the world's history as has been the case; that it should be reserved for GRAVES to write as his own epitaph, "He fed fevers," and for GAIRDNER to follow with the pregnant motto, *Lacte non vino*.

Malignant acute disease.—Let us now consider cases of acute disease which do badly from the outset, and progress steadily until life is destroyed. As simple examples of this class, we may take acute tuberculosis and the acute form of ulcerative endocarditis. In the present state of our knowledge, neither of these diseases, when present in a well-developed form, admits of recovery. Such recovery is so exceptional that it raises a suspicion as to the diagnosis. These diseases are malignant by their very nature.

But there are other disorders which, although benign in some subjects, are malignant in others. Examples of these are erysipelas in the old and feeble, and acute catarrhal pneumonia in debilitated persons. That this is so will not surprise us, since the entity which we call a disease is actually a resultant of several causes. There may be a *materies morbi*, a germ, toxine, or poison introduced from without, but the phenomena of the disease, which in ordinary thought and parlance comprise the disease itself, are due of course to the reaction of the human body to the morbid cause. Such reaction varies greatly, and if it is bad, a benign disease may become malignant.

Let us take the latter class of disorders first—those in which the malignancy is due to fault on the part of the subject.

A disease is acquired, whether by infection, as in scarlatina, or whether it be an inflammatory disease, such as nephritis or meningitis, which, in the present state of our knowledge, we ascribe to a chill, or to nothing at all, and use the term *idiopathic* as a cloak for our ignorance. The reaction of the system to the disease is bad from the beginning; there is not the rapid favourable pyrexia, temperature running up to 103° or 104°, without great disturbance of the bodily sensations, which we learn to look upon with satisfaction. But there is, on the other hand, a low febrile state, with prostration of the bodily powers and a dulled sensorium. The patient is smitten, and instead of an elastic rebound, the stroke falls dead upon his weak organs and loaded

tissues. The disease is not one that is necessarily or generally fatal, but the subject is at fault. Can we foresee this from the beginning? Probably not; but there should be signs from an early stage in the disorder. When the enforcement of physiological rest—a warm bed, good nursing, and regular liquid food, together with easy action of the excretories—skin, bowels, and kidneys—when these bring in the course of two or three days no remission of symptoms, no revival of vital power, but, on the contrary, the pulse remains quick, the temperature remittent, and the manner either dull and depressed, or excited and sleepless—then there is reason to fear an ill result, even from a disease which usually runs a favourable course.

The diagnosis between benign and malignant forms of the same disease is then of great importance. The malignancy may depend in some cases upon the varying virulence of an infective disorder in different outbreaks, such a disease as scarlatina or even measles appearing sometimes in a severe form, and proving fatal to the healthy. But more commonly in the case of an ordinarily benign disorder, the malignancy is due to bad reaction on the part of the subject.

But there are other cases in which the disorder itself shows a malignancy against which an apparently healthy body strives in vain. I have alluded to acute tuberculosis and other infective processes which end in death. Did space permit, I should like to describe three cases in which acute diseases, hard to define, occurred to persons who seemed to be in good health, and destroyed life within a few days or weeks. In two of these the subjects were men of about 60 years of age—one was a patient of Mr. ROBERT ODELL, of Hertford,—and such symptoms as existed, other than those of pyrexia, pointed to inflammation of fibrous tissues in the back and thigh. In another, a woman rather younger, there was some generalised dermatitis going on to scleroderma. Pneumonia or pleuritis supervened in all cases near the close, but it would be to my mind unscientific to call these cases of pneumonia. There was a morbid influence at work, and of a malignant character, and neuritis, dermatitis, or pleurisy were surely local manifestations only. I suspect such cases to be akin to infective endocarditis, although there were no special heart symptoms, and that there was a specific organism or its toxins in the blood.

Let me repeat the chief features. An apparently healthy person is affected with progressive pyrexia of a malignant character, evoking a bad reaction from the outset, and early depressing the vital centres. Some local lesion on the skin or lung surface, or in the nerve sheaths, or fibrous tissues, appears after a time, but the case steadily proceeds to a fatal end, in the production of which the local lesion appears to take no appreciable part.

In the prognosis of these difficult cases some rules which Sir ANDREW CLARK used to lay down are very useful. I give only the substance of them. What is the significance of the phenomena that are present in this case? Does your hypothesis when formed account

for all the symptoms? In such cases the hypothesis most readily formed as to the nature of the disease does not account for the severity of its effects, and we are led to think of some infection or malignant cause behind, which will make our prognosis unfavourable.

A true diagnosis is, then, the first condition of prognosis. We must answer the question. Have we here a well recognised disease? Does it naturally tend to recovery or to death? (is it benign or malignant?) Sometimes these queries are capable of a plain answer. The case is a typical one. At other times this is not so, and we must use caution in prognosis.

I will now take up the clinical history of a case of acute disease with a view to prognostic signs.

Inheritance.—What we know as "inheritance" consists in large part of inherited habits, "common habits" of body and mind, common ways of reacting to external influences; and these have much bearing on prognosis. Does the patient come of a good stock? In some families there is a tendency to early death, or to suffer, and suffer fatally, from some of the acute specific fevers, notably the group consisting of typhoid, scarlatina, and diphtheria, with which acute rheumatism and its congeners, including a form of epilepsy, are allied. Some families show a poor vitality. When an epidemic disease attacks the children, they die off rapidly almost *en bloc*. Such a sad event happened to a late Archbishop of Canterbury, five children dying at one time of scarlatina. I have known a closely similar instance, and am reminded of two pretty large families, in which all the children died of phthisis, one after another, in youth and early adult life, leaving the parents alone. In other stocks the physique may be far from robust, and yet the members are tough, and "pull through" illnesses successfully.

Past history.—The history of the patient has an obvious bearing. I need scarcely allude to the evil effects of past alcoholism in hindering recovery from every kind of acute disorder, especially of alcoholism of a chronic sort, when little food has been taken for a long period. Such cases have, one may say, no resisting power. I remember a woman who took erysipelas and miscarried in the fifth month, and died in a few hours of sheer collapse before the placenta could be removed; she had been living on nips of brandy for weeks and months, taking hardly any food. The rapid decline in phthisis, when it attacks alcoholic subjects, is well known. A history of insomnia, or of privation, or other ill conditions of life, also lowers the resistance to acute disorder. Yet in some cases, contrary as it may seem to this doctrine, a history of weakening conditions prior to an acute attack leads to a favourable prognosis. Dr. H. G. SUTTON points out that when a person has had his blood tension lowered for the time in this way, and an acute disorder has supervened, the augury is better than if the symptoms were due to the latter alone. Rest will bring better nutrition and increased tension, and the acute disease will pass off.

Present condition.—*General physique and habits.*—No healthy adult, Sir ANDREW CLARK used to say, under the

age of 40 years, ought to die of acute specific disease. This is a rule of prognosis, and I trust that it finds its fulfilment in the experience of all of us. Acute disease in the robust tends to be athenic, the febrile reaction is great, and when it kills, life is destroyed by the intensity of the process. In the less vigorous, the fever takes generally a lower range, and death by general asthenia is to be feared. It is in favour of the less robust that such patients commonly give in to illness sooner than others, and take rest. This fact has, I suspect, a large influence in determining the mortality of typhoid fever. The state of nutrition has of course only a limited relation to bulk. Many stout persons are bad subjects for acute disease. Out of ten men who died from enteric fever and influenza within ten years of taking out policies of life assurance in one office, I found that six were men of heavy build.

As regards habits, the effects of alcohol have just been alluded to, but it may be added here that if the disease itself is caused by alcohol, or by any other constant cause which is removeable, for example lead, the prognosis is generally favourable. Thus acute alcoholic gastritis, alcoholic dementia, and delirium tremens show a remarkable power of recovery. Remove the cause, deliver the tissues from the continual soakage with a poison, and in a few weeks nature reasserts herself, and healthy action returns. I have seen this in a striking manner in old alcoholic subjects. When they become so desperately ill that the taste for alcohol is lost, as it is lost in dementia, then, though death by coma may seem to be imminent, they begin to recover.

Nervous system.—Temperament—I come next to conditions which relate to the nervous system. We all know the benefit of an easy mind and temperament to an acute sufferer, and the adverse effect of care and worry. It may be our part to bring him this boon, or at all events help him to obtain it—quietness of mind as well as body. Fear tends to death. How great are the anxiety and alarm which attend some cases of heart disease, and how much it adds to their peril? "Cough it up," said Dr. H. G. SUTTON to a man with profuse hæmoptysis, and, terrified at his own symptoms, "Cough it up, Captain. It will do you good."

Let it be ours to bring the blessed influence of hope. "The hope of cure," said VOLTAIRE, "is already half the cure." It was the opinion of BAUDIE that "a sanguine mind, tempered by a good judgment, is the best for a medical practitioner."

It is better to err on the side of hopefulness, if err we must. In my opinion an entirely hopeless prognosis should scarcely ever be given. "I give him six hours, more or less," says the London doctor in IAN MACLAREN'S story; but the shrewd wit of the countryman, nerved by sore need to desperate effort, brought the patient through. How often we hear, "he was given up by two doctors," and yet recovered. There may be truly but a slender basis of fact for such a statement, but it is better wisdom not to shut out from any case, however extreme, the last glimmering ray of hope, the very complement of life itself.

How potent again is will-power to aid recovery? A presentiment of death tends to fulfil its own prophecy, although I have known at least one case where a rooted conviction of this kind did not prevent the patient from getting well. The power of will was remarkably shown in a man of advanced years known to me, who engaged, even into his ninetieth year, in travel for religious and philanthropic objects over various parts of the world, enduring hardships in Africa, China, and elsewhere. He was repeatedly struck down with acute illness, vesical, alvine, spinal, etc., and lay on his back for weeks and even months at a time, but his spirit was never broken; he always held to a firm conviction, contrary sometimes to that of others, that he should recover and go on his way. And he did recover, and returned to die quietly in his house at ninety-two.

The power of sleep is a very important factor in estimating the outlook of acute disease. "Lord, if he is fallen asleep he will recover," said the disciples concerning the illness of LAZARUS; a truth early established by the ancient physicians, whose clinical insight was in some ways probably equal to our own. Little hope is there for the sleepless fever patient; we can, however, do much more to promote sleep than was possible to our forefathers. The existence of hysteria is of favourable omen in prognosis, for it generally exaggerates the symptoms of whatever disease is present, and so the patient seems to be more ill than is really the case. A like effect is produced in women by the presence of the menstrual epoch, which certainly accentuates febrile conditions. Nervous women are not, one would suppose, favourable subjects for disease, and yet they have oftentimes a way of getting through acute and threatening disorders, even to the surprise of their physicians.

"I really think she will worry through,
She scolds me just as she used to do!"

says the husband in the American ballad. Symptoms of pyrexia and a rapid pulse are of more significance in men than in women and children, because the nervous centres of the latter are more easily disturbed.

Of acute mental disorders, I would hazard the statement that in the young they are generally recoverable, but in the aged almost invariably fatal. I have not known of a case of recovery from acute dementia in the aged, especially that form which comes on after surgical operations.

Circulatory organs.—Much might be said upon prognosis derived from the state of the blood and the organs of circulation. Accurate examination of the blood, giving data for diagnosis and prognosis, is destined, I do not doubt, in the future, to take a larger place than at present in ordinary clinical work. In acute diseases, pallor from blood destruction, and a livid venous hue from ill aeration, are the most obvious blood conditions that we watch for. In infants, the livid hue is most plainly seen in the skin of the face round the mouth, and thence extending upwards to include the nose. When this tint is well marked, convulsions are not far off.

The heart is a wonderfully elastic organ, and subject to great variation of rate in acute disorders. A sudden

drop from 120 to 60 beats per minute, such as we often see at the beginning of convalescence, does not appear to incommode the patient. A heart-rate progressively increasing from day to day, though it be by only two or three beats per minute daily, is one of the most certain and sinister signs in prognosis, and sometimes gives warning of a fatal end for weeks beforehand. A pulse much over 100 in old persons is a bad prognostic, provided we can exclude alcohol, and a neurotic temperament. On the other hand, a very slow pulse in acute disease is risky, and dictates absolute rest, warmth, and stimulants. In some cases of failing circulation, chilling begins at the extremities a number of hours before death. A valuable test of the reserve heart power is to try cautiously the effect of change of posture upon the heart's action. The fatal end is, we know, often proximately caused by sudden effort on the part of the patient, such as sitting up in bed, and we obtain useful information by carefully testing the ability of the organ to bear extra strain.

Respiratory organs.—We may usefully ask in a case of acute disorder, how much margin of respiratory power exists? Dyspnoea is the sign of an empty treasury; the working balance is spent. And so our best clinicians watch the breathing, and help it in every way they can. Rapid respirations, unless due to lung lesions or nerve influence, are of ill omen; so is shallow breathing.

Some years ago, Dr. STEPHEN MACKENZIE put the question at a meeting of the Clinical Society of London whether recovery ever took place in a case in which CHEYNE-STOKES' breathing had developed. A number of instances were brought forward in response, amongst others, one that I had observed with the late Mr. REAN, of Brighton, in which this form of respiration had been recovered from. It is, however, a sign of very low nervous tension, and generally forebodes a fatal end.

Digestive organs.—I have already spoken of the leading part taken by assimilation and nutrition in determining recovery. We ask then, How is this patient eating? Is there appetite, vomiting, diarrhoea? Is the tongue moist? Is he assimilating food, not merely swallowing it? Inspection of the stools passed will often tell us this. Is he wasting too rapidly? Much progressive wasting goes on in many acute diseases. We see the wasting, and know that it will go on, whatever we do; but can we so far check it as to keep the patient alive until the morbid process ends? A patient may die with a clean tongue; I remember such a case in an infant whose illness was long and chronic; moreover, some tongues, owing to atrophy of the papillae, do not readily put on fur. But the power to take food and to digest it is a strong point in favour of betterment. In alcoholism, both acute and chronic, it is the chief factor in prognosis. Singular, if I may digress for a moment, is the contrariety we meet with in medical practice. Many will recollect Sir A. CLARK'S story of the eminent divine, whose organs were loaded to breaking point, and he was "kept up" by constant foods and stimulants, and how Sir ANDREW declared that his diet must be reduced; the friends refused the advice, Sir ANDREW departed, and only returned on a second summons, when he was given *carte blanche*. The patient recovered and lived

for some years after. Let me set beside this a case of Dr. KIDD'S acute gastritis in an aged person. He had the courage, if I am not mistaken, to feed her on sugar and warm water, and she got quite well; in a second attack she fell into other hands, was highly fed, and died. Let us follow good old CHAUCER'S "Doctor of Phisyk."

"Of his diete mesurable was he,
For it was of no superfluitee,
But of greet norissing and digestible."

Skin and kidneys.—Since acute disease puts an extra strain upon the emunctory organs, the prospects of a favourable issue depend in no small degree upon the efficiency of these, and particularly of the skin, kidneys, and bowels. The instinct of the old physicians in clearing the *primæ viæ* at the outset of acute disorders was a sound one. It may have been overdone, but the blue pill, saline purge, and even the emetic, played in some cases a very helpful part. I fear that our gentler methods sometimes fail. I have a case in my mind—that of a stout man of 36, one who lived under much mental strain, and broke down suddenly with fever that ran a rapid course, was attended with pneumonia, jaundice, and failing heart, and soon destroyed life. In such a case as this, an early purge, and sedulous attention to skin and kidneys, would seem to give the only chance of recovery. This is, however, a digression. In prognosis we come back to the question as to the margin of power of these organs. Acute disease calls out the reserves, and it is ill with him who cannot answer to the summons. A kidney that is passing albumin is already unequal to the work required of it. When the total solids are much reduced, the same thing is still more evident. A dry skin is a distinctly unfavourable condition for diseases, both acute and chronic. I examined a man of 31 years for life assurance, who had an unusually dry skin, but a good family history and little else inconsistent with health. He died in five years of phthisis. It is, however, remarkable how well acute inflammation of the kidney is often borne. I saw a man in severe typhoid fever with Mr. COLLYER, of Enfield; there was concurrent nephritis of an acute character, and a history of former attacks. Yet he recovered well. In these cases, the skin and bowels, if kept fully in action, can do much in substitution for the kidney function.

Conclusion.—Let me end these few notes by two or three general remarks. Old practitioners, from long dealing with the sick, get an intuitive sense of prognosis for which it might be hard to render adequate reasons. At a consultation, the scientific men were discussing with animation the pathological problems of the case, but the local attendant, an old Yorkshireman, quietly observed, "You may say what you like, he's ba'd to croak." And die he did.

A young practitioner is apt to err by thinking too much of the physical signs, and too little of the patient. I remember treating, when I was young in the art, a big active city man, who had a patch of crepitations at the base of one lung. I wanted to keep him in bed, but he grew restive, and fled to the seaside, escaping from both bed and doctor at a stroke—and with impunity.

The first art we acquire is to treat the disease. To treat the patient is a talent which comes later. But the personality of the sufferer, his idiosyncrasy, his equation, enter largely into prognosis. It is by degrees that we learn the value of rest—not "doing nothing," but "not hindering anything,"—and that we discern the patient's chances of life to depend largely upon the completeness with which this rest is fulfilled. It is by degrees that we learn to "trust the human body." Let me quote once more the philosopher who once adorned British medicine, Dr. SUTTON: "Doctors who look too much on morbid anatomy, the dead side of disease, are apt to give too gloomy prognosis. They cannot trust the human body."

SUBACUTE AND CHRONIC SEMINAL VESICULITIS.

By JOE. E. MORROW, M.D.,

Indianapolis, Ind., U. S. A.

ACUTE inflammation of the seminal vesicles was recognized as a disease early in the last century; but RIPPON's article in 1859 gave us the first good description of it. Not until the early nineties, however, was special attention given to the study of subacute and chronic seminal vesiculitis. The absence of inflammatory symptoms, in this form of vesicular disease, was the probable cause of its existence remaining so long unrecognized. It was the intractability of some functional, and what seemed to be incurable, deep urethral disturbances which led FULLER to suspect and study the vesicles as a possible source of these disorders. The publication of his book on Sexual Disorders has thrown much light on this previously obscure disease.

Anatomy.—In order to serve the purpose of this paper, it is necessary that the grosser anatomy of the parts be briefly reviewed. The seminal vesicles are two piriform sacs attached to the posterior part of the base of the bladder. Connected with the fundus and anterior surface of each are three blind pouches. Beginning at the middle of the posterior border of the prostate, they extend obliquely upward and outward two and a half inches, are a little over a half-inch at their widest part, and a fourth of an inch thick. On their inner sides lie the ampullæ of the vasa deferentia, which discharge their contents through valve-like openings in the walls of the vesicles near the origin of the ejaculatory ducts. The vesicles have three coats—the mucous, muscular, and fibrous.

The mucous membrane is lined with columnar epithelium, and contains small tubular glands, which secrete a viscid, bluish-white fluid that dilutes and preserves the testicular secretions. The muscular coat at the base is not divisible into layers, and is so intimately connected with the muscular structure of the prostate that it is difficult to determine where the border of that body comes off and the vesicles begin. At the summit the muscular coat is divided into four layers. The fibrous sheath is, at the base, an extension of the same coats of the ampulla and prostate; that covering the summit is

formed by the weaving together of the filaments extending upward and backward from the fibrous bands binding the prostatic body to the rectum. The interspace between the vesicle and bladder is filled in with delicate connective tissue, which in fat people usually contains adipose tissue. The ejaculatory ducts begin near the posterior border of the prostate, and entering a common sheath pass through an infundibuliform lymph space in the body of the gland and discharge into the sinus prostaticus.

Pathology.—This divides into: (1) A consideration of the changes induced in the vesicular wall and perivesicular tissue; (2) the change in vesicular contents.

The resulting changes in the coats and perivesicular tissue differ much in subacute and chronic vesiculitis. In the subacute the inflammation and consequent deposit is limited to the walls of the sac, while in the chronic form there is a tendency to increasing perivesicular deposit. In the subacute variety, where the inflammation has involved only the mucous membrane, there is at first a slight thickening of the walls of the sac, followed by distension and thinning of the walls. This is due to defective ejaculation resulting from lack of the vesicular fluid necessary to dilute the thick testicular secretion. Then, too, cases are met where, without any evidence of inflammation, the vesicle is distended and its walls thinned. As this condition is found only in anæmic and neurasthenic patients, there can be little doubt that the muscular atrophy permitting this distension is due to defective innervation. If these cases be not properly treated, inflammation results. A varying degree of thickening of the vesicular wall is usually present. The exudation may be limited to the submucous tissue, or it may occur between the muscular layers. There may be hypertrophy with contraction, or the same condition with dilatation. The latter condition, though, is usually associated with muscular atrophy.

In chronic vesiculitis the deposit in the walls of the sac is not only more pronounced, but there is a tendency to progressive perivesicular exudation. This varies with the severity and chronicity of the case, from a slight deposit in the connective tissue between the vesicles to the rectoprostatic bands, to a filling up of the rectovesical space and that on either side of the bladder with the exudate. This exudate is at first in a condition of hard oedema, but it finally becomes fibrous.

Tubercular inflammation of these parts is very important; it may be acute, subacute, or chronic. The acute is very rarely met. The subacute is much more common; it causes slight thickening of the vesicular coat and change of consistency, but seldom gives rise to subjective symptoms. In the chronic form, although the vesicular contents and walls of the sac are changed, the latter becoming inelastic, the characteristic feature is extensive perivesicular involvement.

The changes in the seminal fluid are: (1) Change of color, and (2) change in consistency.

Abnormal color of semen usually depends on the presence of blood or pus. The coloring lent by the admixture of blood depends on the amount and the

length of time that has elapsed since the hæmorrhage occurred. If the bleeding be abundant and recent, the semen has the characteristic color of blood. The red tinge varies with the amount of hæmorrhage from a bright red to a slight reddish hue. The description holds good where hæmorrhage is not recent, except that in the latter cases the coloring lent by the blood changes from the reddish tinge to black or coffee-ground where the bleeding has been abundant, or brownish or rusty color where it has been slight.

The color due to the presence of pus depends on the same rule as that on the presence of blood. If the pus be abundant and fresh, there will be the creamy yellow characteristic of pus. If the admixture be less, the yellow color will be less accordingly. If the pus be old, a greenish hue takes the place of the yellow. It sometimes happens that blood and pus co-exist.

Neither blood nor pus occurs in that of subacute cases. Sometimes, when the chronic cases take on an acute character, pus exists. In very chronic cases bleeding is a frequent pathological factor.

A consideration of the act of ejaculation will show that variations of consistency are of the greatest importance. The change in consistency varies much according to the stage of the disease. There may be only the thickening due to the absence of the vesicular secretion, or the semen may become so thickened as to be almost putty-like in consistency.

Etiology.—There are three classes of this disease :—

I. The simple, caused by : (1) Sexual excesses ; (2) undue sexual excitement ; (3) unnatural sexual relation, such as (a) premature withdrawal, (b) tight condoms ; (4) sudden cessation by those accustomed to regular sexual intercourse ; (5) mental strain and overwork ; (6) lack of nerve force to the muscular coats of the vesicle.

II. Gonorrhœal. This form is induced by the lesions due to gonorrhœa, such as stricture, posterior urethritis, etc. Direct extension causes acute seminal vesiculitis. Considerable time may elapse in these cases between the cause and effect, it being known not to become evident for from two to seven years from the date of the gonorrhœa.

III. The third class is due to tuberculosis. In this there may be a mixed infection ; a gonorrhœa having engrafted itself upon a latent tuberculosis. This sometimes produces an acute vesiculitis, but the usual form is subacute and chronic.

Symptoms.—The development of this disease, if it does not follow an acute inflammation, is very insidious. There being only in rare cases inflammatory symptoms, it frequently happens that it is only when disturbance of function or reflex nervous derangements attract attention that the patient consults a physician. The symptoms which should cause a suspicion that the vesicles are the probable source of disturbance are :—

2. The patient feels as if he had not completely emptied the bladder.
3. Fulness and stiffness of neck of bladder.
4. A sense of fulness over the pubis.
5. Burning pain in the perineum, especially when the patient is quiet. (This is sometimes the only symptom.)
6. Pain in the sacral region.
7. Pain in the groins, especially when going upstairs.
8. Troublesome erections, especially at night ; and as the disease progresses, imperfect erections.
9. Increased sexual desire.
10. Loss of sexual desire.
11. Lack of pleasurable sensations during sexual intercourse.
12. Retarded emissions.
13. Premature emissions.
14. Painful emissions.
15. Emissions without sufficient cause.
16. Passive loss of semen, unassociated with sexual excitement, especially during a constipated movement. The writer is now treating a case which on two occasions, while straining at stool, passed from the meatus gelatinous masses of semen.
17. Bacteria in the urine, other sources having been excluded.
18. Chronic urethral discharge, when there is no discoverable urethral lesion.
19. There is also sometimes found in the urine glossy sticky masses containing spermatozoa.
20. A case was recently seen where a most annoying symptom was a cold, clammy sensation of the glans penis.

Almost all of these symptoms are intensified by sexual excitement, the paroxysm sometimes lasting several days. If space would admit, there could be enumerated a number of reflex neurotic disturbances which, although there be no apparent connection with the vesicular disease, yet their dependence on it is shown by their disappearance when the restoration of the vesicle is complete. From what has been said, it is evident that the symptoms of this disease are varying and indefinite, and even contradictory, for opposite conditions have been cited as a reason for suspecting the same cause. Often there may be only one of the symptoms present ; but when any of them exists, other sources having been excluded, seminal vesiculitis is to be suspected.

Diagnosis.—From the number and indefiniteness of symptoms, it is evident that the diagnosis must be exclusive. The diseases to be excluded are stricture, posterior urethritis, prostatitis, spermatorrhœa, cystitis, and pyelitis. But, after all, the only really effective

1. Frequency of urination, especially during the day.

means of diagnosis is digital examination per rectum. The examiner having become familiar with the anatomy and feel of the normal parts, will readily recognize the previously described pathological conditions. This is especially true of the simple and gonorrhoeal varieties. But it is necessary that the finger of the genito-urinary surgeon be as carefully educated in the rectal feel as that of the gynecologist is in vaginal touch, in order that the finger grades of differences may be appreciated.

To exclude tubercular origin is not always easy; but as the vesicles are seldom the primary seat of the disease, the evidence of tubercle in other organs will make the character of the inflammation clear.

Prognosis.—The prognosis is usually good, if the patient be under forty and of fair physique, and tuberculosis be excluded. The chances of recovery, however, are diminished if the case be very chronic, say from seven to ten years' duration. Seminal vesiculitis associated with senile hypertrophy does not yield readily to treatment. In tubercular cases the prognosis is uniformly bad. In all cases, since so much depends on the co-operation of the patient, and many have not the self-control necessary to follow the regimen prescribed, it is better to give a guarded prognosis.

Treatment.—In subacute and chronic vesiculitis the only treatment, except in the tubercular form that is effective, is milking or stripping the vesicles. The method is as follows: The patient should be required to present himself with the bladder full. It is best to have a small amount of urine passed for comparison. The patient is then made to flex his body at the hips by bending over the back of a chair. The index-finger of either hand, well lubricated with vaselin, is carefully passed into the rectum. It is better to be very gentle with the first examination, lest what is only unpleasant may come to be looked upon as an ordeal. The first effort of the finger in the rectum is to locate the posterior border of the prostate; this having been accomplished, it is pushed gently upward and outward, and an attempt made to map out the body of the vesicle. It is not always easy, unless it be moderately distended, to distinguish the outline of a healthy vesicle. In disease, distention of the sac and thickening of its coats make the border readily definable, unless there be a perivesicular exudation. The finger being inserted to the limit, firm pressure is made with the tip on the body of the vesicle, and it is then gently stripped in the direction of the ejaculatory duct. This process is repeated three or four times. The pathological secretion is thus forced on into the prostatic urethra; so sometimes in cases of extreme distention stripping will cause the vesicular contents to flow from the meatus.

The patient is not allowed to empty the bladder. If stripping has been successful, the fluid voided will contain masses of altered semen or inflammatory exudate, which may take the form of cylinders about the size of a knitting-needle, globules, coarse and fine flakes, an amorphous sediment, or there may be only a milky appearance. In some cases a perfect cast of the vesicle has been brought away.

Care must be taken not to use too much force in these treatments, for sometimes an acute inflammation of the vesicle, and less frequently of the corresponding epididymis, is induced. The writer had the misfortune in one case to cause a moderately acute vesiculitis and subacute epididymitis, either by using too much force or making the interval too short. Then, too, in very chronic cases, care must be taken lest serious hemorrhage be induced. Diminishing tenderness is largely the guide as to interval between treatments. If judgment be exercised as to frequency and force, there should be a steady diminution of tenderness and amount of material expressed from the vesicle, and the inflammatory exudate should be gradually absorbed.

The stripping process promotes a good result, first, by relieving distention of the sac by the pathological material, and thus allowing the muscular coats to regain their tonicity; secondly, where exudation is present, it induces softening and absorption of the exudate.

In most cases stripping is the only treatment required. In some cases, though, on account of frequent nocturnal emissions, it is necessary to give potassium bromide, fifteen grains three times daily, and phenalgine five grains at bedtime. If the patient be debilitated and anæmic, tonics such as iron, nux-vomica, and cod-liver oil do much good. FOLLER insists that in chronic cases cod-liver oil assists greatly in promoting absorption. In all cases where vesical fermentation co-exists, and in some cases where the expulsive force of the bladder seems sluggish, the intravesical irrigation of 1:30,000 to 1:20,000 hydrarg. bichlor. solution immediately after squeezing the vesicle may be of value.

The active treatment of vesiculitis covers from six weeks to six months in the milder cases, to six to twelve months in the more severe and chronic. The longer the case has gone without treatment, the greater will be the time required for relief. Stripping should not be undertaken too soon after an acute attack, nor continued in any case if it produces increased tenderness.

In tubercular vesiculitis, stripping almost without exception does harm. In this form of the disease, tonics and antitubercular remedies, in the same manner as when the tubercular process has attacked the other organs, is the treatment indicated.

A MIRROR OF PRACTICE.

TWO CASES OF ANEURISM.*

By J. O. SKEVINGTON, F.R.C.S.,

Civil Surgeon with the South African Field Force.

Case I.—The patient was a sergeant in the Yeomanry, and a man aged 38, of magnificent physique. He was admitted on July 25th, complaining of pain and swelling in the right arm of one week's duration. There was no history of lues, but a history of a heavy blow over the front of the right shoulder twelve months previously, caused by a piece of wood flying from a circular saw. His usual occupation was that of a clerk. On examination there was slight œdema of the right forearm and remarkable clubbing of the right finger-tips. In the axilla was an aneurism of the second and third parts of the axillary artery of the size of a duck's egg. As potassium iodide and rest, etc., had no appreciable effect, and the operating theatre was perfected, the right subclavian was tied with stout China silk on August 28th. Most elaborate aseptic precautions were taken. The artery tied was perfectly healthy, and the patient presented no sign of arterial, renal, or cardiac disease. Capillary circulation was good under the nails one hour after ligature. The patient has made an uninterrupted recovery, and the aneurism is now about the size of a bagatelle ball, hard and pulseless. The radial pulse has never returned, but the arm is as good as ever. Curiously, in so short a time, the clubbing of finger-tips has appreciably diminished.

Case II.—A sergeant in the Yeomanry and an old St. Mary's man was admitted from Pochefstroom in the first week in August, suffering from a severe bullet wound of the right thigh. The bullet had entered over the centre of HUNTER'S canal, and could not have more accurately hit the line of the artery. This wound was luckily closed, and the inner side of the thigh was one vast bruise. The exit wound was in the form of two suppurating holes on the outer aspect of the thigh with everted edges. The track clearly lay behind the bone, but the nerve was uninjured. As the bruising disappeared, pulsation was noticed under the situation of the entrance wound. The exit wounds being healed, the patient was operated upon on August 30th. In the two days previous the aneurism had almost doubled in size, and, as nearly as I can estimate, it was about 3 inches transversely and 2 inches longitudinally. ESMARCH'S tourniquet was used, and the artery tied above and below the aneurism. The sac was a large friable one, and had leaked posteriorly into the internal vastus, where a large quantity of fresh clot was found. The vein passed through this and was thrombosed, probably having been injured by the bullet. The patient stated that on the field hemorrhage of a dark colour was very great, saturating his clothing. The consistence of the vein was that of wet blotting-paper, and on removal of the tourniquet the venous hemorrhage

was profuse. On account of the state of the tissues, all attempts at lateral ligature were unavailing, and with most of the calibre of the vein in such a condition, it was not justifiable to put the patient in bed with artery forceps on. The vein was accordingly ligatured, all clot was removed, and the wound dried. Two hours later circulation was good in foot. Fourteen days later pulsation could be felt in the posterior tibial. At no time has there been a trace of œdema. The internal saphenous vein is full and seems to do the bulk of the work.

Luckily I was assisted by Mr. MURRELL, who had seen double ligature at this spot. HUNTER, in his first three cases, ligatured artery and vein, and Mr. WATSON CHEYNE, in a case of scirrhus glands in the axilla, removed two inches of artery and vein perfectly successfully. I have recollection of Mr. EDWARDS, of Luton, telling Mr. COLLIER of a double ligature for stab wounds in the thigh, and I believe at this situation. We have a good series of traumatic aneurisms here, and also varicose aneurisms, and in every case they have been most formidable undertakings, except in one case of BRINCKEN'S of aneurism at the bend of the elbow. The so-called harmless modern bullet, as a rule, creates a condition of the tissues which must be seen to be believed. I am convinced that ample opportunity will be afforded for seeing blood-vessel cases at home later, for the men who have grazes by great vessels, and they are many, will not escape scatheless.

DEATH WHILE UNDER THE INFLUENCE OF ETHER.

By ALFRED RECKLESS, M.R.C.S.

Sheffield.

I HAVE been unfortunate enough to meet with a case of death during the administration of ether, and herewith I send you an account of the case.

Mrs. M., married 9 years, pregnant for the first time, commenced labour at full term on the morning of January 30th. She was a slight, frail woman, weighing 6st. On my arrival a little after 2 P.M., I found the first stage of the labour completed, the os fully dilated, and the head well engaged in the cavity of the pelvis, and I congratulated myself that my patient was going to have a fairly easy time. Such was not the case, however; the "pains," at all times feeble, quickly wore her down, and she rapidly showed signs of being unable to accomplish her own delivery, so I administered chloroform, and brought the head gently and slowly down with forceps until it rested well on the perineum. The forceps were then removed, and a few pains expelled the head, but unfortunately the after-coming shoulder ruptured the perineum down to, but not through, the sphincter ani. (The weight of the child dressed was 9 lbs.) The torn perineum was at once closed with deep sutures.

The patient rapidly regained consciousness, and appeared to be in a satisfactory condition, and remained so with a normal temperature until the evening of the third day, when I found her temperature was 100° but she was otherwise feeling well. During the morning of February 1st she had a rigor, and the nurse found that her temperature was 100°. From that time onwards she became worse, rapidly showing signs of pelvic peritonitis and a general septicæmic invasion. It was not, however, until the morning of February 4th that

* From St. Mary's Hospital Gazette (London).

the case assumed a very grave and desperate aspect. Upon my visit on that day I found the patient much worse, and formed the opinion that purulent effusion was taking place into the peritoneal cavity.

In consultation with Mr. PYE-SMITH, it was decided to open and drain the peritoneal cavity, having first pointed out to the husband the dangers of shock and the administration of an anæsthetic in her then condition.

She took ether well. Pus in abundance was found, and the operation was half finished, when suddenly she vomited a large quantity of black liquid, filling the mouth and saturating everything around. The breathing at once ceased, and, suspecting that suction had taken place into the lungs, an incision was immediately made through the crico-thyroid membrane and a rubber tube inserted. The patient was inverted, and a quantity of the liquid vomit immediately returned through the tube, and artificial respiration was maintained until it was seen to be useless to continue it further.

The patient was in a desperate condition when the operation was undertaken; but, had not the unfortunate and unforeseen accident occurred, I think it is fair to suppose that the operation would have at least given her a last chance of recovery.

An inquest was held, and the jury returned a verdict of "Death from suffocation during an operation whilst under the influence of ether."

A CURIOUS CASE OF ACCIDENTAL THROAT CUT : DEATH.

By DADABHOY P. PRESTOMJEE, G.H.M.S.,

Medical Officer in charge Civil Dispensary, Karimnagar,
Jelgondal, Hyderabad, Deccan.

A somewhat singular case occurred at a place called Manakoondoor last year. The body of a "kalai" (toddy drawer) was found one morning at the top of a palmyra tree, 75 feet in height, in a jungle at the outskirts of the village. It was clothed in the usual dress of a "kalai" when tapping a toddy tree—a tight dhotee round the waist, over and around which was a broad leather band with the necessary tapping implements pushed through on the side. The body was supported and suspended by the rope, which, in the case of all toddy-drawers, passes in a circle round the trunk of the tree and under the buttocks of the man; this suspension was made further possible by the rope anklet, which is also always used, and which, passing round half the circumference of the trunk, facilitates a grasp of it by the soles of the feet. A "kawar" or horizontal piece of wood, at the ends of which the toddy pots are carried, a few blood-stained leaves and a sharp scythe-like instrument were found on the ground at the foot of the tree. At the post-mortem the body was seen to be rigid, in a position with the knees bent up towards the elbows. There was a wound in the throat, 2 inches in depth, 3 inches in width, and extending 7 inches from left to right severing the upper portion of the windpipe and branches of the carotid arteries. The incision commenced on the left side, a little below the angle of the jaw, and passed downwards, forwards and outwards to the right. There were no cuts on the hands, and the fingers and wrists were semi-flexed. No indications of violence were obtained on dissection internally, the organs being healthy, but bloodless from copious loss of blood. A thorough investigation of the case by the proper authorities, coupled with the medical evidence, led to the conclusion that the wound in the neck was accidentally self-inflicted by the scythe used for tapping having cut through the portion being tapped suddenly and forcibly on to the left upper side of the neck, the continuity of the outward movement of the right hand carrying the instrument right across the throat to the right lower side of the neck.

Indian Medical Record.

17th April 1901.

BOGUS AMERICAN DIPLOMAS IN INDIA : TRUTHS AND UNTRUTHS ABOUT THEM.

SOME time ago we published a letter from Dr. J. A. EGAN, Secretary to the State Board of Health of Illinois, U. S. A., in which that gentleman detailed by name the various bogus or unrecognised institutions of Chicago that traded in worthless medical diplomas. Shortly after our article appeared, a letter was published in our Calcutta contemporary, *The Bengalee*, over the signature of "SURAT CHANDRA GHOSE, M.D.," who holds his diploma from one of the questionable societies named by Dr. EGAN. We forwarded Babu GHOSE's letter to Dr. EGAN, asking him to explain matters. It appears also that Babu GHOSE appealed to the "proprietors" from whom he bought his M. D., and one of them answers his appeal, which he now publishes in *The Bengalee*.

For the benefit of our readers and of the public at large, we give publicity to both the American letters now referred to :—

I.

OFFICE OF THE AMERICAN HEALTH UNIVERSITY

AND DUTTON MEDICAL COLLEGE ;

Chicago, March 2nd, 1901.

SARAT CHANDRA GHOSE, M.D.

DEAR DR,—Yours of the 24th of January instant received. I have read it with careful attention. Yee, we have heard of the agitation in India about irregular Schools of Medicine, but our friends here are not troubled about it. Agitation is the beginning of wisdom. Dr. ARMSTRONG's case is not ours. He has had two charters revoked. We have been teaching and conferring degrees for fifteen years, and still hold our charters intact. For proof that our charters are legal, and our right to confer degrees undisputed, I refer you to the Secretary of State, Springfield, Ill, U. S. A. His statement would probably be undisputed. If Dr. EGAN wrote as you say, he is wrong in two particulars. We do have the legal right to confer the degree of M. D., and our college is in no sense fraudulent. We deceive nobody. I do not like to think that Dr. EGAN deliberately lied. He may have been incorrectly reported. Our students are undisturbed. You will not be injured by the espousal of our cause. My books and reputation are our best defence. Yes, our college is on a solid basis. Our school is reputable in the minds of thousands of people. I say fearlessly that there is no stigma on our college, and never has been.

Sincerely yours,

GEORGE DUTTON, M.D., Secretary.

II.

STATE BOARD OF HEALTH, ILLINOIS ;
Springfield, the 5th March 1901.

JAMES R. WALLACE, M.D., F.R.C.S.,
50, Park Street, Calcutta, India.

MY DEAR DR. WALLACE,

I have your favor of the 31st of January 1901, in which you enclose me for comment an article appearing in *The Bengalee*, signed by "SURAT CHUNDR A GHOSH, M.D.," relative to certain "Medical Institutions" in Chicago. There is nothing in the communication of Mr. GHOSH which merits any attention from me, or from any one connected with this Board; but I realise that if the statements made are not contradicted and shown to be false and misleading, an erroneous impression may be formed in India, relative to the status of Medical Education in Illinois; so, for this reason, coupled with a desire to aid you in your good work of ridding the Empire of the possessors of the diplomas of DUTTON, ARMSTRONG, etc., I will answer Mr. GHOSH's statements concerning this Board—the "Dutton Medical College" and the "American Health University."

Mr. GHOSH, who is evidently familiar with the real facts in the case, although he assumes a virtuous innocence, which, under other circumstances, would be laughable, claims—

1. That the Illinois State Board of Health "is a Board where the Allopathic element is absolutely supreme."

2. That the "Dutton Medical College" is a branch of the "American Health University," and is a reputable medical college.

3. That the "American Health University" is a "regular and reputable institution."

4. That it confers its degrees under the law of the State of Illinois.

5. That the "Dutton Medical College" and the "American Health University" are chartered under the laws of Illinois.

In answer to this recital of facts (?) I will say:—

1. The Illinois State Board of Health is composed of physicians of the Regular, Homœopathic and Eclectic Schools of Medicine. This Board recognizes colleges of all schools of medicine. There are a large number of homœopathic colleges in the United States which are in good standing with the Board, among which may be mentioned five in the city of Chicago, Illinois.

2. The "Dutton Medical College" is not a branch of the "American Health University." The latter corporation, which was never a medical institution in any sense of the term, is now extinct, or rather it does not confer, or, putting it more plainly, does not now sell and barter degrees in medicine. In other words, the "American Health University" long ago ceased to do business. One GEORGE DUTTON, whose right to the degree of M. D. is not known to this Board, was connected with both corporations: hence the allusion to a "branch."

Parenthetically it may be said that there is not now, and there never has been, a medical college or institu-

tion in the city of Chicago named the Dutton Medical College. A corporation bearing this name, headed by the aforesaid GEORGE DUTTON, according to information obtained, conferred at home and abroad many degrees of M. D., principally through a so-called "correspondence course;" but the "corporation" has never yet organized or conducted a medical college or institution.

3. The above remarks will apply also to the "American Health University," which never was "a regular or reputable medical institution," or a medical institution of any kind. Like the "Dutton Medical College," it was simply a corporation empowered under the lax corporate laws of Illinois to confer degrees.

4. This is not disputed. The "Illinois Health University," the "Independent Medical College," the "Metropolitan Medical College," all a part of "Dr." ARMSTRONG's brood, also conferred degrees under the lax corporation laws aforesaid.

5. Neither is this disputed. Owing to the lax corporation laws above referred to, it is possible for any three or more persons to organize a corporation in the State and confer degrees. "Drs." GEORGE DUTTON, JAMES ARMSTRONG and others have taken advantage of these laws, and under the provisions of the charters have engaged in the barter of degrees. An excellent law enacted in 1899 somewhat mitigates the pernicious effect of the corporation laws of 1872, for under the provisions of the Act of 1899 it is possible to obtain at once an injunction, restraining from doing business, any corporation "which abuses, misuses, or violates the terms of its charter."

It might be aptly noted at this point that, from 1877 to 1899, the State Board of Health of Illinois recognized, without examination, diplomas conferred by reputable medical institutions in good standing, and that a license to practise medicine and surgery in the State was granted by the Board to the graduate of any reputable institution in good standing, on the presentation of his diploma and a fee of \$5. Had the "American Health University" and the "Dutton Medical College" been properly conducted medical institutions, it is very probable that this Board would have recognized the diplomas issued. The Board, however, has rejected all degrees presented from these corporations. Were the institutions in question of the character stated by Mr. GHOSH, the holders of the diplomas would have had redress in the courts. No attempt, however, was ever made to mandamus the Board to compel the issuance of a license.

In conclusion, I will state that the following are the only medical colleges or institutions in the city of Chicago, State of Illinois:—

Rush Medical College.

Northwestern University Medical School.

Northwestern University Woman's Medical School.

College of Physicians and Surgeons.

Illinois Medical College.

American Medical Missionary Medical College.

Jenner Medical College.

Harvey Medical College.

Hahnemann Medical College.	}	Homœopathic.
Chicago College of Homœopathy.		
Dunham Medical College.		
National Medical University.		
Hering Medical College.		
Bennett Medical College	...	Eclectic.
College of Medicine and Surgery	...	Physio-Medical.

Very truly yours,
J. A. EGAN, Secretary.

These letters clearly explain the position of the "American Health University" of Chicago. It is as clear as daylight that the "diplomas" of this institution are not recognised as reputable; that, indeed, they are worthless and in every sense befitting the title of BOGUS. We trust we shall now hear no more about these traffickers in frauds, and that India will set its face against men who hold "parchments" that disgrace the buyers as much as they do the sellers of them.

DIABETES MELLITUS.

We coll the following from an excellent article in the *Journal of the American Medical Association* :—

It seems probable that diabetes has long been recognized, although the presence of sugar in the urine, from its sweetish taste, was first detected in the seventeenth century, and it was not until the eighteenth that glucose was isolated. Then followed a careful description of the disease, with the recommendation of an animal diet and exclusion of vegetable food in treatment. Scientific study of the etiology, nature and treatment of diabetes was, however, not begun before the middle of the nineteenth century; but since then few diseases have had more attention devoted to them, both clinically and experimentally. In an interesting communication, Von NOORDEN discusses some as yet unsettled questions in this connection, and points out the lines along which scientific investigation may profitably be directed. Quite apart from increased thoroughness of clinical study, there is scarcely room for doubt of the increased morbidity and mortality of diabetes.

With regard to the question of etiology, emphasis has been placed upon the influence of alcoholic excess, heredity and race. The especial predisposition of the Jews to diabetes has attracted attention, and it is suggested that their dissemination and admixture with Indo-Germanic blood may have something to do with the more widespread prevalence of the disease.

A satisfactory explanation for the excretion of sugar by the diabetic patient is yet wanting. This has been thought to be due to the presence of an increased amount of sugar in the blood, but it has been shown experimentally that sugar may appear in the urine as the result of certain forms of intoxication, without an excess of sugar in the blood. The latter phenomenon has been attributed to special activity on the part of the kidneys, and the condition has been designated renal diabetes. In addition to glucose, combinations containing it may be present in the blood. In general it is agreed that the sugar of the blood and the urine is derived from carbo-

hydrates, especially hexoses and pentoses; but it has been shown that it may be derived also from certain proteids and from fat.

Among the special metabolic processes peculiar to diabetes are the production and elimination of non-nitrogenous substances belonging to the fatty acid series, namely, acetone, diacetic acid, and beta-oxybutyric acid. These three are closely related, not only clinically, but also pathologically. When the urine and the expired air contain little acetone, diacetic acid and beta-oxybutyric acid also are, as a rule, absent. When much acetone is present, diacetic acid likewise will be present; and when there is much of the latter, there will generally also be beta-oxybutyric acid. It seems probable that beta-oxybutyric acid is the parent substance, appearing in the urine only when produced in large amount, or when reduction in the alkalinity of the blood prevents its transformation into diacetic acid. The presence in the blood of the acids named is responsible for the large elimination of ammonia that is observed in cases of marked diabetes. It is not known why the diabetic produces so much beta-oxybutyric acid or diacetic acid, but this is favored by exclusion of the carbohydrates from the diet. The source of the beta-oxybutyric acid is believed to be the proteids and the higher fatty acids. The most important fact in this connection is that diabetic coma is almost always associated with the presence of large amounts of beta-oxybutyric acid or its derivatives in the blood; but whether the coma is dependent upon the acid, or upon an intoxication peculiar and specific to diabetes, or to both of these influences, is as yet a matter for discussion.

It is no longer believed that the general metabolism is increased in cases of diabetes, with resulting emaciation and increased demand for food. The oxidation processes are not greater than in a healthy individual under normal conditions, and the emaciation is due to loss through the urine, as sugar, of a part of the energy supplied by the food ingested. As a rule, further, the proteid metabolism of the diabetic is normal. Exceptionally, in the terminal stage, before the onset of diabetic coma, toxogenic proteid metabolism may occur in accordance with the character of the diet. The diabetic exhibits a tendency to suffer from loss of lime, and this is thought to be due to the presence of organic acids in the blood. Absorption of food from the stomach and the intestines, however, pursues a normal course. In some cases, on the other hand, absorption of fat and proteids is impaired. Under such circumstances, it is probable that the secretion of pancreatic juice is interfered with, and, clinically, administration of pancreatic extract has proved serviceable.

There is yet much to learn in connection with the pathogenesis of diabetes. It is known that lesions of the floor of the fourth ventricle, intoxication with phloridzin, and total destruction or extirpation of the pancreas, may, among other things, give rise to the manifestations of the disease. Clinically, diabetes may be considered a derangement of metabolism of varying degree, and with corresponding variations in the intensity of the symptoms to which this gives rise. In the line of treatment no great advance has been made beyond that of rigid dietetic individualisation. There is no effective medicinal remedy, although opium and its alkaloid, as well as antipyrin, salicylic acid and jambul, are capable of diminishing the elimination of sugar, but their effect is uncertain and transitory, and the injury resulting from their long-continued use is greater than the temporary benefit.

COMMENTS AND NEWS.

SUSPECTED BEER-POISONING IN INDIA.

MAJOR A. BUCHANAN, I.M.S., Nagpur, has addressed the following letter to the Administrative Medical Officer :—

I have the honour to report, for your information, that I have seen to-day a case of what appears to be arsenical beer-poisoning, similar to those cases which have been reported recently in England. As far as I am aware, no such cases have hitherto been seen in India, and as so many Europeans drink beer in India, I have thought it advisable to report the matter to you at once and without waiting until some of the beer has been obtained for analysis.

2. The patient is the wife of a guard on the E. I. Railway, and she has been living at Asansol. She came here a few days ago; she is unable to walk or even to stand alone, and she has lost the sense of feeling to a great extent in her legs and arms.

3. My reasons for suspecting that it is a case of arsenical beer-poisoning are as follows :—

(1) The patient has been in the habit of taking one or two glasses of beer daily.

(2) She is suffering from the same symptoms as were noticed in the cases that occurred recently in England.

(3) She came to Nagpur in January last, and remained here for a month. While in Nagpur she did not take beer, and the symptoms—frequent sickness and “pins and needles” in the hands and feet—abated.

(4) On her return to Asansol she began drinking beer again, and the symptoms got worse.

(5) She says she has been told that some other women at Asansol have been suffering from similar symptoms, and that some of these women have gone to one of the hospitals in Calcutta.

4. The toxic symptoms have been divided into four groups, roughly corresponding to four stages in the disease—(1) digestive, (2) eruptions, (3) sensory, and (4) paralysis—and these are well illustrated in her case. At first she suffered from vomiting, and she did not care for food. She has at present a slight skin eruption, especially on the elbows, where the epidermis is peeling off. She has had a good deal of numbness and feeling of pins and needles in the hands and feet, and a sensation as of ants creeping over her arms. At present when touched on the legs with the two points of scissors, seven inches apart, she feels as if she were touched by one only. There is occasional pain in the limbs, and on pressure, especially over the large nerves, there is severe pain. The most usual paralysis observed at home was of the muscles which bend the toes upwards, and this in her case is complete. The knee-jerks are absent—another symptom observed in the English cases. She is unable to button her clothes—also a symptom recorded in the home cases.

5. Further, there is another symptom which makes it still more likely that the poisoning is the same as that seen in England, *viz.*, her skin has become darker, and both her husband and her father had remarked on this point before they had even heard of the case of arsenic-poisoning in England.

6. It was noticed in England that the epidemic occurred chiefly among women. In the reports which have appeared in the *British Medical Journal* during the past few months,

this fact is alluded to by several writers. I shall make a short quotation from one report. Dr. JAMES WALKER, writing from Scaforth, Lancashire, says :—

“Dr. OWEN had informed me that he had observed quite a local epidemic of a form of illness amongst women characterised by a sensation of pricking, burning, numbness in the hands and feet, and decided loss of power in both arms and legs, and had been unable to account satisfactorily for its occurrence.”

Dr. WALKER then describes some cases, chiefly in women, that he saw himself, and the symptoms tally with those recorded above.

7. In several reports attention is drawn to the fact that only a small quantity of beer was consumed by those who suffered. For instance, Dr. NATHAN RAW, of Liverpool, writes :—

“At the present time there are no less than 52 cases in the wards. During the past six months I have been particularly struck with the fact that in almost every case beer or porter was the favourite beverage, and in many cases, chiefly among women, only a small quantity had been taken daily, quite unable to account for the toxic symptoms. Taking these facts into consideration, I was quite convinced that there was some impurity in the beer or porter, but, until reading the paper by Dr. REYNOLDS, was quite at a loss to determine the cause.”

This patient says she has been taking one or two glasses of beer daily, and there is not the least suspicion that she has been taking a larger quantity.

8. In ordinary peripheral neuritis, the symptoms are somewhat like those which have been noticed in this case, and the question will arise—May not this be a case of ordinary peripheral neuritis? There is very distinct pigmentation of the skin, especially on the neck, and there are eruptions on the points of the elbows; these two symptoms are not found in ordinary peripheral neuritis, but they are described by those who have written about cases of arsenical beer-poisoning that occurred in England. I think, therefore, that there are very strong grounds for suspecting that arsenical beer has been introduced into India. As a large number of Europeans, especially soldiers, drink beer daily, it will be advisable to have the beer examined, and especially to see whether glucose, prepared with impure sulphuric acid, is used in the manufacture of the beer which is sold in India.

9. I am trying to obtain some samples of beer from Asansol with a view to having an analysis made. I think, however, that, pending further enquiries, it would be well to draw the attention of beer drinkers to the possibility of arsenical beer having been introduced into India.

RENAL INSUFFICIENCY.

THE *Medical World* says :—Many persons who are seemingly healthy have defective renal action. There may be no actual disease, but the kidneys are not doing their work. Such a condition persists for years, overlooked by both doctor and patient. The end sometimes comes suddenly, and we stupidly wonder why so many people die of BRIGHT'S disease. Were all doctors better diagnosticians, such a state of affairs could not long maintain. Given two men equally trained, and trained by the same masters, the hardest and most conscientious worker will be the better diagnostician. Better and more carefully made diagnoses would detect cases of kidney insufficiency in their very incipency, while there was yet hope.

Always inquire after the condition of the urine. If it be high colored, irritating, excessive in amount, deficient in quantity, or foul-smelling, it is certain that the functional activity of the kidneys needs to be investigated. Often such conditions may be present, and yet the patient may be so indifferent as to have failed to notice them or be so ignorant as to think the matter of no importance. No physician who takes charge of a case can acquit himself of neglect if he fail to know just how the kidneys are acting. It is well to remember that high colored or scanty urine is not necessarily a sign of kidney insufficiency; the patient may have indulged freely in alcoholic drinks, or have habitually ingested too little water. Even albumin in the urine is, in itself, no absolute sign of actual kidney disease. Many causes will act to bring about temporary albuminuria. Those diseases of the stomach which are accompanied by supersecretion and phosphaturia will cause albumin to appear in the urine. The point to be settled is whether the albuminuria is functional or organic. Gastric ferments and albumoses, circulating in the blood, are carried through the kidneys and injure them to a greater, or less extent. The greater harm is said to come about by the injury they inflict upon the blood and cardio-vascular system, the liver, and the general state of nutrition of the body; and thus, in addition to the irritation from the unassimilable albumin, damage is done the glomeruli and tubules of the kidney. Such damage may be congestive, inflammatory or actually degenerative. May we not believe that such an irritation, beginning as a congestion, passes to an inflammation and in turn becomes degenerative? If this be plausible, then it is certain that stomach disease will cause actual "BRIGHT'S disease," under certain conditions. Chronic nephritis is not amenable to treatment, but supersecretion and phosphaturia are, and the chances seem that if such a case had been properly treated for the stomachic trouble, the nephritis might never have existed. It is equally certain that when the phosphaturia began, if the urine had been examined, evidence of kidney insufficiency would have been found.

We might carry the illustration further, and refer to liver and other organs, but we hope to have said enough to induce our readers to resolve to be more conscientious in examination and diagnosis.

GRANT MEDICAL COLLEGE, BOMBAY.

Rules for admission of Matriolated Students and others to the courses of Study at the Medical School of Bombay.

From and after the 15th of November 1901 selected Matriolated Students of the Bombay University, or of some University recognized by it, who have passed the Matriculation Examination with a Classical language, and who may wish to graduate in Medicine, shall, with exceptions hereinafter stated, be admitted to the general course of instruction in Grant College on payment of the following fees:—

MATRICULATED STUDENTS.

1. An entrance fee of Rs. 25.
2. A fee at the rate of Rs. 12 per mensem for 12 months in the year, to be paid in advance at the beginning of each Session.

EXCEPTION A.

Occasional Students (Matriculated or not).

Occasional students, i.e., persons who may wish to attend hospital practice or a course of lectures on any one of the subjects enumerated under Lists B. and C. below, shall be

privileged, upon a payment of Rs. 30, for any one course of lectures under B; Rs. 30 for any one course under C; and for six months' attendance in any of the Wards mentioned in List D. the fee is Rs. 40.

List B.

Descriptive and Surgical Anatomy.
Practical Anatomy.
Chemistry.
Practical Chemistry.
Physiology.
Materia Medica and Practical Pharmacy.
Pathology (including *post-mortem* examinations).
Medicine and Clinical Medicine.
Surgery and Clinical and Operative Surgery.
Medical Jurisprudence and Practical Toxicology.
Midwifery and Diseases of Women and Children.

List C.

Botany. | Ophthalmic Surgery.
Biology. | Hygiene.

List D.

The Medical Ward. | The Obstetric Ward.
" Surgical " | " Ophthalmic "
Out-patients.

All fees to be paid in advance.

The winter session of Grant College will commence on the 15th November. Candidates who may wish to enter the College on that date are requested to communicate with the Principal on or before the 10th November, and must forward a certificate of having passed the Matriculation Examination of a recognised University with a classical language, duly signed by the Registrar.

The summer session commences on 15th June.

MEMO.—The selected Matriolated Students of the year 1901-1902 will be allowed to enter College from the date of their having passed.

N. B.—Students who intend to go to England for Diplomas must have passed in Latin or an Oriental Classical language.

W. K. HATCH, F.R.C.S.,
Lieutenant-Colonel, I.M.S.
Principal.

A MEDICAL TRADE ADVERTISEMENT BY A GOVERNMENT MEDICAL HOTEL.

THE following advertisement is extracted from a Calcutta daily paper:—

"NOTICE."

"The Eden Sanitarium and Hospital are open for the reception of visitors, convalescents and sick patients requiring medical and surgical treatment in a cool climate. The Civil Surgeon, who is also the Superintendent, attends daily. The hospital building is quite separate from the sanitarium. Both buildings are fitted throughout with electric light, and the sanitarium contains a piano, an excellent billiard table, and a tennis court. When necessary, patients will be met at the railway station, which is only five minutes' walk from both institutions.

"TERMS:"

(Including medical attendance and medicines.)

1st Class	...	...	Rs. 8 per diem.
Intermediate Class (viz., 1st class room	...	...	...
downstairs and 2nd class table)	...	...	6 " "
2nd Class	...	...	4 " "

"For further special particulars and rules, apply to the Superintendent, Eden Sanitarium and Hospital, Darjeeling. DARJEELING, the 5th April 1901."

It will be noted that this advertisement deliberately includes "visitors," that is, casual holiday seekers; for the words which follow are, "convalescents and sick patients." We note also amongst the "terms," Rs. 8, 6 and 4 as the charges, with the words "including medical attendance and medicines."

This advertisement is open to grave objection. First, it advertises "medical attendance" as a trade; second, it is in open rivalry and conflict with the private interests of every hotel and boarding establishment in Darjeeling, by the inclusion of "visitors" as among its clientele. We are certain the Lieutenant-Governor of Bengal will not approve of the Eden Sanitarium being used as an ordinary boarding house, and what is more, we should expect the Medical Officer of that institution, the Civil Surgeon of Darjeeling, to protest against his position being compromised by an advertisement which reduces him to the level of a hotel manager and a paid attendant at an advertised drug-store and medical boarding-house, where his "medical attendance" is blazoned before the public as worth Rs. 8, 6 and 4 daily, "including medicines" with diet and other commodities thrown in.

ON SOME DISAPPOINTMENTS OF SURGERY.

D'ARCY POWER'S, F.R.C.S., article concerns itself with the minor unsatisfactory results of operations—the surgical disappointments, which are due to two main causes—either the surgeon promises too much, or his fear of doing harm prevents his doing enough. A frequent disappointment following circumcision is that the out surface of the prepuce adheres to the glans; this may be avoided by frequent retraction, or by passing the glans through a slit in the gauze dressing. In harelip operations, there is often faulty apposition of the two red edges of the lip; to avoid this, the first suture should be passed at that point. The recurrence of adenoids is a fertile source of disappointment to parents. The operation may be perfectly successful, but the predisposition remains; so that too much should not be promised as a result of removal. The greatest disappointments occur in connection with abdominal operations, especially in those carried out upon the kidney. The formation of a fistula, where it occurs immediately after an operation, can hardly be called a disappointment; but they often occur at a period remote from the operation, when the wound has healed soundly. The trouble is usually with the ligatures used. Disastrous disappointments are often met with in operations for internal strangulation of the bowel, hernia and intussusception. Operations upon the vermiform appendix afford so many surgical disappointments that it is never wise to promise too much beforehand. Mental disturbances often follow operations, and the author cites several instances. Injuries to bones are followed by the most disastrous as well as the best-known surgical disappointments: COLLES or POTT'S fracture, non-union, the formation of a conical stump—in all these the results may be annoying and disastrous to a surgeon's reputation. Injuries of nerves and dislocations are perennial sources of disappointment.

ETHER versus CHLOROFORM IN THE TROPICS.

We quote the following from the *Journal of the American Medical Association*:—In a report to the Surgeon-General of the Army on the operative work at the First Reserve Hospital, Manila, P. I., from September 1, 1899, till February 28, 1900, Major W. P. KENDALL, Surgeon, U. S. A., makes some interesting remarks on the anesthetics used. The cases

included 49 of hernia, radical cure; 19 appendicitis 15 amputations, including two of the hip-joint, one of which was successful; 35 of hemorrhoids; 18 varicoceles; one ligature of the external iliac, the femoral and the sub-clavian in its second part, all successful, and many other operations involving the use of a general anæsthetic. "Regarding the choice of anesthetics," says Surgeon KENDALL, "there was an apparent difference, not seen in the United States, between ether and chloroform. Whether this would disappear after a longer experience and some modified way of administration or not was not determined; but, as it was, we all grew to be afraid of chloroform, including those whose experience with it had been large even to the exclusion almost of ether. Heart failures came on rapidly and with great severity, producing death in two chronic appendicitis cases before operation was begun. Besides these, there were several cases of suspended animation, while with ether no trouble was observed. Our experience fully confirms that of those who claim that in hot countries the paralyzing effect of chloroform is greater than when used in colder climates, due, probably, to the lack of tone of the motor nerves.

COMPULSORY EXAMINATIONS FOR OSTEOPATHS AND CHRISTIAN SCIENTISTS.

THE *New York Medical Record* says:—We are glad to note that the so-called Bell bill which, if passed, will compel all who wish to practise medicine to pass the State examination, is to be reported favorably by the committee before whom the hearings have been held. As we have previously pointed out (*New York Medical Record*, February 2nd), the amendment provided by this law will compel those who wish to pose as practitioners of "osteopathy" and "Christian science" to submit to the same regulations as are enforced in the case of the graduate of the regular medical school, in order to carry out their intention of practising. The fairness of such a requirement, it would seem, should be evident to any one, since the claim that these unlicensed persons wish to treat only certain diseased conditions is ridiculous and not founded on fact. The passage of the Bell bill will insure equal treatment before the law of all who wish to assume the responsibility of caring for the sick and injured. The medical profession of this State ought to appreciate the importance of this measure, and we again urge physicians in all parts of the State to write in favor of this bill to their assembly men and State senators, not merely to the Chairman of the committee on public health. We may be sure that the legislators will be flooded, from now until the bill is voted upon, with those peculiar effusions which pass for statements of fact among the foolish knaves and knavish fools who compose the "sects" of "osteopaths" and "Christian scientists."

THE PRINCIPAL OF THE BOMBAY MEDICAL COLLEGE ON MEDICAL ADVERTISING.

THE *Times of India* of the 6th April has the following comment on Colonel HATCH'S speech at the distribution of prizes in the Grant Medical College of Bombay re medical advertising:—

"There is one passage in Colonel HATCH'S report which we ourselves are under some obligation to commend to the notice of those members of the profession to whom it especially applies. He spoke strongly, but not too strongly, upon the practice of paragraphic advertising to which too many of the profession are addicted. The press themselves, it must frankly be admitted, are not free from blame in this regard, for they have too readily lent themselves to the practice by announcing the return to India of enterprising young practitioners laden more or less with what at a

distance may seem to the uninitiated to be academic distinctions. It takes time for a right professional feeling to develop in a community which has only in comparatively recent times witnessed the growth of a recognised medical profession in its midst, and for that reason advertising practitioners have met perhaps with more indulgence than they deserve. We have now, in Colonel HATCH's pronouncement on the subject, an authoritative declaration that "it is contrary to the etiquette of the profession to advertise in the manner referred to, and that the feeling of its members is entirely opposed to vulgar practices of this sort," and no medical man should allow his ambition to make him indifferent to so distinct a judgment as this.

CHARITY.

THE blessings which the weak and poor can scatter
Have their own season. 'Tis a little thing
To give a cup of water; yet its draught
Of cool refreshment, drained by fevered lips,
May give a shock of pleasure to the frame
More exquisite than when nectarean juice
Renews the life of joy in happiest hours.
It is a little thing to speak a phrase
Of common comfort, which, by daily use,
Has almost lost its sense; yet on the ear
Of him who thought to die unmourned, 'twill fall
Like choicest music; fill the glazing eye
With gentle tears; relax the knotted hand
To know the bonds of fellowship again—
And shed on the departing soul a sense
More precious than the benison of friends
About the honored death-bed of the rich—
To him who else were lonely, that another
Of the great family is near, and feels.

—T. K. TALFOURD.

NEW MEMBERS, INDIAN MEDICAL ASSOCIATION AND ITS PROVIDENT FUND.

THE following have joined the Association:—

- Srimaty Nistarini Chakrabarty, Lady Doctor, Dumraon, E. I. Ry.
Bipin Bihari Gupta, Assistant Surgeon, Dumraon, E. I. Ry.
Mg. Kyaw Khine, C.M.S., Civil Hospital, Bassein, L. Burma.
Wishwanath Narayan Tatke, C.M.S., Civil Hospital, Goona, C. I.
R. N. Ohdedar, Civil Assistant Surgeon, Nauranga, Doorjanpur P. O., Dist. Ballia.
Atmaram Bulchand, C.M.S., A. B. C. Dispensary, Hyderabad, Sind.
Uma Kanta Sarma, V.L.M.S., Baringachory Dispensary, Baringachory P. O., Dist. Sylhet.
C. A. Preece, Assistant Surgeon, Station Hospital, Purandhar, Poona District.
Fakheehooddeen Hossain Khan, Civil Surgeon, H. E. Nawab Amceri-Kabir, Sir Khoroosheedjah Bahadoor's Staff, City Hyderabad, Deccan.
F. G. DeCruz, Assistant Surgeon (plague duty), Burhanpur, C. P.
U. N. Bannerji, M.B., Assistant Surgeon, Inspecting Medical Officer, Famine Relief Works, Chhindiwara, C. P.
J. H. A. Donnelland, D.G.M.O., Assistant Surgeon, Station Hospital, Ahmednagar.
Mohammad Abdul Latif, V.L.M.S., 60, Sankhareepara Road, Bhowanipur, Calcutta.
Syed Buzloor Rahman, C.M.S., Dalgaoon Tea Estate, P. O. Birpara, Jalpaiguri.
Raghe Priya Saran, C. M. S., Nishi Bag Hospital, Benares City.
J. Doyle, Apothecary, B. M. Ry., Kasganj.

The following have joined the I. M. A. Provident Fund:—

- Syed Buzloor Rahman, C.M.S., Dalgaoon Tea Estate, P. O. Birpara, Jalpaiguri.
F. G. DeCruz, Assistant Surgeon (plague duty), Burhanpur, C. P.
Bipin Bihari Gupta, Assistant Surgeon, Dumraon, E. I. Ry.
Srimaty Nistarini Chakrabarty, Lady Doctor, Dumraon, E. I. Ry.
Fakheehooddeen Hossain Khan, Civil Surgeon, H. E. Nawab Amceri-Kabir, Sir Khoroosheedjah Bahadoor's Staff, City Hyderabad, Deccan.

THE OLDEST WOMAN IN ENGLAND.

MRS. CORNELIUS HANBURY, SE., is the oldest subject of the Queen in England. An excellent portrait of Mrs. HANBURY was given in last week's *Sphere* as the centrepiece of a group of centenarians who have seen three centuries of the Christian era. Our contemporary remarks: "Mrs. HANBURY (born June 9, 1793, just three months before the execution of Marie Antoinette,) was the daughter of JOHN SANDESON, of All Hallows, London Wall, a zealous member of the Society of Friends. In early life she was closely associated with the various good works of Elizabeth Fry, and in 1826 married the late Mr. CORNELIUS HANBURY, of the well-known firm of ALLEN & HANBURY. For just three-quarters of a century she has been a total abstainer. She could read and write as usual until she was over a hundred. Her only surviving son now directs the great business in Plough Court, and in the month of June last celebrated his own golden wedding within a few days of his venerable mother's 107th birthday." There have been many references to Mrs. HANBURY in the daily newspapers this week, generally incorrect, but the *Sphere's* information is authentic.

TWO IMPORTANT CALCUTTA MEDICAL APPOINTMENTS.

LIEUTENANT-COLONEL, I.M.S., writes:—"Two very onerous I.M.S. posts in Calcutta will soon be rendered temporarily vacant by the departure, on furlough, of Major H. W. PILGRIM, Surgeon Superintendent of the Presidency General Hospital, and Major GIBBONS, Professor of Medical Jurisprudence to the Calcutta Medical College, Police Surgeon to Calcutta, and Principal of the Campbell Medical School, Sealdah. If really suitable men are wanted for these appointments, the Bengal Government could not do better than to place Major E. HAROLD BROWN, M.D., I.M.S. in Major PILGRIM's post, and Major P. BEHIR, M.D., F.R.C.S., in Major GIBBONS' post."

We heartily approve of these suggestions. Major PILGRIM has done excellent work in the European General Hospital during his incumbency, while Major HAROLD BROWN has had a splendid record in the Calcutta Suburban Hospital and the Civil Surgeoncy. On the other hand for Major GIBBONS, the leading man in the I.M.S. in medico-legal ability and experience, no more suitable incumbent could be found as his temporary successor than Major BEHIR.

EXAMINATION FOR THE F.R.C.S., ENGLAND.

A correspondent asks for information on the following points: (1) Is it possible to manage both Primary and Final examinations for the Fellowship of the Royal College of Surgeons of England reading at home, and if so, would two or three hours' steady daily reading for twelve months give a fair chance of passing? (2) What are the essential books for the two examinations?

" (1) It is practically impossible for any one to pass the Primary Examination for the Fellowship of the Royal College of Surgeons unless he can have facilities for practical work in a dissecting room and a physiological laboratory. The books of most use are Quain's *Anatomy*, tenth edition (London: Longmans, Green, and Co., 1890-98, 25); Morris's *Treatise on Human Anatomy*, second edition (London: J. & A. Churchill, 1898); Ellis's or Cunningham's *Manual of Dissections* (London: Smith, Elder, and Co., 1876); Foster's *Text-book of Physiology* (London: Macmillan and Co., 1891-95, 46s. 6d.); *Stirling's Practical Physiology*, third edition (London: G. Griffin and Co., 1895, 9s.). (2) For the Final Examination the best text-books are: *Tillman's Principles of Surgery* (London: Henry Kimpton, 1895, 63s.), or *Erichsen's Science and Art of Surgery*, tenth edition (London: Longman's Green, and Co., 1895, 84s.); *Waring's Manual of Operative Surgery* (Edinburgh and London: Young J. Pentland, 1898, 12s. 6d.), or *Jacobson's Operations of Surgery*, third edition (London: J. and A. Churchill, 1897, 34s.); and *Surgical Anatomy in Morris's Treatise*. It is improbable that two or three hours' daily reading would be sufficient. In order to have a fair chance of passing, much more time is usually found necessary.

DEATH OF DR. (MRS) SHARP, SECOND PHYSICIAN, POONA HOSPITAL, BOMBAY.

THE death occurred, on Wednesday last, of Dr. (Mrs.) SHARP, the Second Physician at the Cama Hospital. On the 3rd instant she was attacked with fever, her illness taking a serious turn on Sunday. She died on the morning of Wednesday last, at half past 6 o'clock, in the thirty-fifth year of her age. She was the second daughter of the late Captain J. F. WALKER, Senior Dockmaster at the Victoria and Prince's Docks, and was the first lady graduate in medicine at the Bombay University. In 1895 Dr. SHARP went to Europe, and took the degree of M. D. at the Brussels University. About six years ago she married Mr. A. R. SHARP, of Messrs. TOLHILL, SHARP & Co.

NOT IN VAIN.

"If I can stop one heart from breaking,
I shall not live in vain;
If I can ease what limbs are aching,
Or still the pangs of pain,
Or help one fainting friendless robin
Unto his nest again,
I shall not live in vain.

A REQUEST FROM THE EDITOR OF THE "RECORD."

WILL any of our readers living in Dinapore, N.-W. P., or near by, be so good as to oblige the Editor of this journal by obtaining for him an authenticated copy of the judgment in a case tried at the Dinapore Magistrate's court two or three years ago, in which a native, posing as a medical man with bogus American diplomas, was tried, convicted and punished with a heavy fine for publishing and selling obscene medical books and literature. The Editor will be glad to pay all costs incurred.

UNUSUAL WEATHER IN CALCUTTA.

The weather in Calcutta during the past six weeks has been altogether abnormal. Although the heat has hardly been greater than usual, the city has not been visited by a single one of the north-westerns that are common at this time of the year. The north-westerns, accompanied by much thunder and lightning, bring with them heavy showers of rain which were most useful in laying the dust. At the present time Calcutta is choked with heavy dust. One wonders whether the prevalence of the dust can have had anything to do with the rise in the plague mortality, as compared with the two previous years.

SHORT ITEMS AND PERSONALITIES.

A correspondent points out the following errors in the *Indian Medical Record* of 6th March 1901, which, to be correct, should read as follows:—On page 366, "Captain E. Wickham Hore, M.B., I.M.S.," instead of "Hoare"—an error in spelling probably of your contributor, and then again on page 273 of the same paper, "Military Assistant Surgeon Tillumal Hasanand" should read either Civil Assistant Surgeon or Hospital Assistant, as there is no one of that name in the service of Military Assistant Surgeons.

Assistant Surgeon A. Beale, transferred from the Sind District on the 4th March 1901 to the Bombay and Nagpur Districts, was attached for duty to the Station Hospital, Colaba, Bombay, from the 11th March to the 2nd April 1901.

No. 2, Native General Hospital, belonging to the China Expeditionary Force, is now on its way back to India, the medical officers accompanying it being Lieutenant-Colonels Hamilton and Nandi.

Colonel Branfoot, I. M. S., Principal Medical Officer, Rangoon Command, has been appointed to act as Surgeon-General with the Government of Madras, in the room of Surgeon-General Sinclair, C. A. I., who goes on leave.

At their weekly meeting on March 25th, the managers of the Edinburgh Royal Infirmary appointed Dr. Robert Milne Murray and Dr. N. T. Brewis, second and third assistant gynecologists to that institution.

Major W. A. Sykes, M.B., D.S.O., I. M. S., officiates as Medical Storekeeper, Bengal Command, during the absence, on leave, of Lieutenant-Colonel D. P. Macdonald.

Colonel G. C. Hall, I. M. S., will officiate as Principal Medical Officer, Lahore District, while Colonel Joubert is acting as Principal Medical Officer, Punjab Command.

Colonel Joubert, I. M. S., officiates as Principal Medical Officer, Punjab Command, *vice* Colonel Spencer acting for General Harvey, who is on leave.

Miss Edina Lawrie, Lady Superintendent, Afzulgunj Hospital, Hyderabad, sister of Lieutenant-Colonel Lawrie, Residency Surgeon, died on Monday after a few weeks' illness.

Military Assistant Surgeon George Ross (Crowe) died at the Presidency General Hospital, Calcutta, on the 19th April, from Rodent Ulcer.

WANTED—AN EXPERIENCED DOCTOR. SALARY

Rs. 40 per month and free family quarters. Apply sharp with copies of testimonials and diplomas. Apply to F. M. Coventry, Esq., Manager, Turcoullah Indigo Concern, Turkaullah P. O., Chumpanun.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES B. WALLACE, M.D., F.R.C.S., 60, PARK STREET, CALCUTTA.

The Indian Medical Association Provident Fund is now working. It offers a simple and safe form of Life Assurance to all medical men and women. Join at once.

The *Indian Medical Record* offers the following prizes:—Rs. 10 to Rs. 15 for a good Original article; Rs. 5 to Rs. 10 for a good Clinical Report. Competitions must be subscribers to the *Record*.

Current Medical Literature.

MEDICINE.

Inhibition of the Heart as an Aid in Diagnosis.

ALBERT ABRAMS, (*Philadelphia Medical Journal*) sums up the following conclusions: (1) The inhibition manœuvre will cause organic cardiac murmurs to become faint, and in exceptional cases inaudible. (2) Transmitted murmurs are more amenable to the manœuvre. (3) The fainter the murmur, the more easily it is suppressed by the manœuvre. (4) When a transmitted murmur can be inhibited, the tone which it masks can be auscultated. (5) Heart tones are less amenable than are heart murmurs to inhibition. (6) Hæmic murmurs are more readily inhibited than are the organic murmurs. (7) As a rule, the murmurs of anemia may be suppressed and their evanescence is marked by the reappearance of tones. (8) Exocardial murmurs are easily influenced by the inhibition manœuvre. (9) When the inhibition manœuvre is incorrectly executed, the result is to increase the intensity of the murmurs owing to increased exertion which intensifies the force of the heart's action. (10) The manœuvre often repeated gives no results, owing to overstimulation of the vagi. (11) In irregular action of the heart, or in delirium cordis, the inhibition manœuvre is valuable in determining the time of a murmur. (12) This manœuvre enables us to determine the condition of the vagi as inhibitors of the heart and is a guide in the administration of cardio-tonics. For clinical purposes, inhibition of the heart, according to the writer's experience, is best attained by voluntary contraction of the muscles of the neck, which, however, must needs be forcible. The manœuvre is readily learned.

Pernicious Anæmia: a Study of One Hundred and Ten Cases.

R. O. CABOT gives the results of his examination of these cases, including blood counts. From this analysis he makes up a composite symptomatology as follows: (1) A slow, insidious onset without recognisable cause; (2) remarkable freedom from pain; (3) striking absence of emaciation (in most cases); (4) the frequent presence of symptoms suggesting disease of the spinal cord; (5) paroxysmal attacks of diarrhoea and vomiting, occurring without any obvious relation to diet or to treatment, preceded and followed by periods in which digestion and absorption were performed without apparent difficulty; (6) tendency to great spontaneous improvement in all the symptoms, followed by rapid and inevitable relapse; (7) a reduction in the red corpuscles to a point below 2,000,000 per cubic millimetre, without a corresponding reduction in the hæmoglobin; a reduction in the number of leucocytes, and especially in the number of polymorphonuclear neutrophiles; the presence of large numbers of oversized, well-stained red corpuscles, some of them containing nuclei (megaloblasts), together with a tendency to abnormal staining reactions and to an oval shape in the red corpuscles.

The distinctive features in the diagnosis of secondary or symptomatic anemia are: (1) The presence of a well-recognised cause; (2) the steady progress of the symptoms, especially in malignant disease. If gastro-intestinal symptoms are present, they seldom improve spontaneously; (3) emaciation; (4) the blood.

Unilateral Albuminuric Retinitis, with Report of a Case.

PYLE (*Philadelphia Medical Journal*) thinks that albuminuric retinitis is often unilateral, the other eye becoming involved by the time the patient consults an oculist. In the interesting case he reports, unilateral albuminuric retinitis existed for a period of five years without affecting the sound eye. Considering the various theories advanced in explanation of the oneness of the retinitis, the author thinks that the only positive data could be furnished by a separate catheterization of the ureters, as this would be the only means of finding out whether only one kidney is diseased, and if so, which one it is. He mentions an instrument recently devised by NEUMANN for that purpose. It is constructed like a Japanese fan, which can be withdrawn into the handle. The instrument is inserted into the bladder and the fan opened. The convex border approximate accurately the posterior vesical wall, and thus two separate compartments are formed. As to prognosis, the author concludes that the simple apoplectic form of albuminuric retinitis is the least dangerous to life, and if the symptoms are not very severe and can be controlled by medication and diet, the retinitis is not a fatal prognostic sign so long as it remains unilateral.

Treatment of Aortic Aneurism.

THE recently recommended gelatin-injection treatment is the subject of an article by N. KALENDER. (*Klin. therap. Woch.*) The first indication to be met in curing aneurism sacs is to eradicate, as much as possible, the cause. Syphilis being the most common etiological factor, an antiluetic treatment would seem in place were it not for the fact that in the majority of cases the media is too much destroyed to admit of good results. By increasing the coagulability of the blood, the sac may, however, be obliterated, and this is most efficiently accomplished by the use of gelatin. As an example, the case of a patient with aneurism of the transverse arch is cited, in which paralysis of the recurrent nerve was the prominent feature. Although of undoubted syphilitic origin, the iodides aggravated the condition. Gelatin injections (1 gm. gelatin in 100 c.c. sodium chloride solution once a week) were then resorted to, with the remarkable results that after five weeks the patient was practically free from symptoms both subjective and objective.

Persistence of the Arterial Duct and its Diagnosis.

GIBSON contributes a clinical lecture on the persistence of the arterial duct and its diagnosis. In consequence of the higher pressure of the blood in the aorta as compared with the pressure in the pulmonary artery, there must be a current from the former to the latter, in case the ductus arteriosus is patulous, and this stream will be almost continuous. The blood will flow with greatest velocity during and immediately after the ventricular systole, when the pressure in the aorta is at its highest. It must, therefore, be expected that the condition will be evidenced by a long murmur, beginning a little after the commencement of the first sound, filling up the short pause and continuing beyond the second sound. The murmur is almost invariably accompanied by a thrill. Both murmur and thrill are heard with maximum intensity in the second or third left interspace, just outside of or below the pulmonary area. The clinical and pathologic history of a fatal case is given. The condition may give rise to no symptoms and the diagnosis is based upon the physical signs alone.

SURGERY.

Mountain Toothache.

THE Physician and Surgeon says:—"We are still far from correctly understanding the influence on the human organism of changes in climatic conditions and variations of atmospheric pressure, and there is a wide field of useful research in this direction. *La Mèdecine Moderne* tells us that a curious malady, which is apparently due to influences of this kind, has been lately observed by M. HAFNER, of Zurich, among the engineers and workmen engaged in the construction of the railway on the Jungfrau. At the end of the first eight or ten days after commencing work, each newcomer is seized with extremely violent pains in several teeth on one side of the jaw, accompanied by swelling of the gums and inflammation of the tissues of the cheek. The affected teeth are exceedingly sensitive to pressure, and mastication becomes very difficult. The pains increase up to the third day, after which they diminish gradually, and cease at the end of six or seven days. After their disappearance there remains no trace of the previous affection or troublesome sequelæ of any kind, and no alteration can be detected in the teeth. M. HAFNER considers that the trouble is a phenomenon of acclimatization. He points out that the men working on the railway are obliged to remain constantly in an altitude of nearly 800 metres, and in each case the same interval elapses between arrival and the manifestation of symptoms. When once the attack is over there appears to be no tendency to recurrence."

Voluntary Luxation.

FRANCESCO PARONA reports a case of voluntary or habitual luxation of the left shoulder. The patient was a girl aged seventeen years, and the dislocation had first appeared when she was eight years old, a few months after she had had a fall. She could put her shoulder out of joint at any time; there was no asymmetry, swelling, or other deformity, and when the bone was in place the left arm could be used as freely in every direction as the right. The author decided to operate, and, having opened the capsule, found that the head of the humerus was perfectly formed, and the serous and cartilaginous tissues were normal. Having made folds in the capsule, he stitched them down, and the possibility of dislocating the joint was prevented. The patient made a good recovery, and the cure had been perfectly maintained two years later.—*New York Medical Record*.

Some Facts, Medical and Surgical, about Appendicitis.

H. CARSTENS sums up his conclusions as follows: (1) It ought to be a general rule to operate on every case of appendicitis as soon as the diagnosis is made, but when it is a first attack and mild, or no proper facilities are at hand for operation or subsequent care of the patient, it is often good policy to wait and watch the case. (2) In cases of second or subsequent attacks, however, the patient should be sent to a hospital, even if it is at quite a distance—unless good facilities can be had at home—and an operation promptly performed. (3) Statistics of cases operated on as they come along, good, bad, and indifferent, by experienced surgeons, give a mortality of only eight per cent. (4) Statistics collected by general practitioners who are able and up to date, and who advocate surgical interference, show that medically treated cases have a death-rate of at least fifteen to twenty per cent.; that at least sixty per cent. have recurrence; while in the cases operated on the patients are absolutely cured.

Fear as a Cause of Death in Children with Slight Burns.

DR. EMILIO CIOFFI (*Riforma Medica*) reports two cases of children who sustained burns that were not sufficiently severe to have caused death. These children, according to CIOFFI, died of fright. He reviews the cases of death from fright reported in literature, and discusses the various theories of death from slight burns. Fear, he says, is man's second nature. It is more natural and more spontaneous than courage. Even the most courageous animals stand in fear of a more powerful adversary. Courage is artificial, cultivated, and ultimately the product of fear. His conclusions are as follow: The various theories con-

cerning death from burns are not sufficient to explain the deaths of children from comparatively slight burns which he has observed. The only effect upon the nervous system that such an accident can have is the occurrence of a paroxysm of fear. The special susceptibility of the child's brain to severe shocks may produce convulsions, followed by depression, paralysis and death. In some cases psychic shock is followed by gradual depression of the nervous energy of the body; in others, death is due to paralysis of the vagus from specific effects on the centres. The effect of fear is so intense in children in the absence of judgment and will that the first stimulus is probably continued by the presence of the pain of the burn. Fear is more apt to produce these effects in neuropathically predisposed children. The only treatment is, so far as possible, to remove the original psychic impression. The medico-legal importance of the subject is not appreciated as fully as it should be.

Actinomycosis.

CHARLES ALLEN PORTER (*Boston Medical and Surgical Journal*) reports eight cases with the object of attracting attention to the possibility that a proportion of the cases ranking as alveolar abscesses may be due to the specific organism of this disease. Though it cannot be a rare affection, he says few cases enter the hospital with advanced actinomycosis of the jaw, and it seems therefore certain that many recover after simple incision of the abscess, and even through a natural rupture of it. Simple opening, curetting, and drainage have proved sufficient in many cases; though recurrences may be frequent, healing eventually takes place. When possible, excision of the inner half of the abscess wall or sinus is the best treatment. The danger from swallowing the granules, when the discharge empties into the mouth, is hard to estimate. Certain cases of generalized disease in the lungs, intestinal tract, liver, etc., occur, in which the organism gained entrance through the food, or was swallowed, and therefore the surgeon should aim at making external drainage.

A Plea for Early Operation in Cases of Undoubted Tubercle of the Lung.

IN discussing the dangers of operation in cases of this nature, J. F. PALMER finds three to be especially noteworthy: first, pneumothorax; second, surgical emphysema; third, hæmorrhage. Emphysema may result from rupture of the trachea or larger bronchial tubes, external wounds into the cellular tissues surrounding the costal pleura without lesion of the latter, lesion of the costal pleura only with external wound, and lesions of both pleura with or without external wound. In regard to hæmorrhage, the writer says that, when a cutting operation is required at the apex of the lung, and no adhesions are present, the diseased part, if not too extensive, might be included in a single ligature and the whole excised. In all operations on the lung, the introduction of bacteria from without, through the wound in the chest-wall, can be effectually prevented by modern antiseptic methods. But there is in these cases another channel of entrance for bacteria, viz., the trachea and bronchial tubes. The general experience of internal wounds of the lung when the skin is intact points to the pneumococcus as most to be feared in this direction. Pneumonia is the most frequent complication of rupture of the lung and the wounds caused by fractured ribs, injuries in which the trachea is the only passage for microbes, and which resemble in this respect operations on the lung with the external opening in the chest wall hermetically.

OBSTETRICS AND GYNECOLOGY.

Face Presentations:

O. SCHAEFER (*Centralbl. f. Gynaekol.*) concludes that, as a rule, when the parturient canal is normal, the forceps are usually contraindicated, both as a correcting and as a traction instrument, in difficult face and brow presentations. Occasionally, when the head is small and the occiput short, or when the head is freely moveable upon the trunk, they may in skilled hands and normal path of delivery serve to save a child otherwise lost. Force should never be applied. When the head is less moveable, fixed manual correction after the method of ROSE or VOLLAND should be tried. The same observations apply to anterofrontal presentations with advance of the brow even in normal canals when mere bettering in the presentation is at stake. Finally, attention is directed to the fact that forcible traction along with the local mechanical extension and squeezing may set up long and severe nervous reflex phenomena.

Ten Successful Cases of Cesarean Section.

W. J. SINCLAIR gives detailed accounts of ten cases of CESAREAN section, with general remarks on the subject. The time of the operation is a matter in which there is a great difference of opinion, but, as he says, in the majority of cases there is very little choice. We do not now, as in former days, use it as a last resort. In all cases incision of the uterus was postponed until it could be drawn forward out of the abdominal wound, and it is always best to insert an elastic tube so as to compress the uterine vessels in cases of emergency. It does not necessarily require any very large abdominal incision, for, in the majority of cases, after rupture of the membranes, the volume of the uterus is not so great, and the advantages of cleanliness and precision in the operation, by drawing up the uterus, are beyond question. The objection to elastic ligation has no basis. If the deep sutures are inserted as quickly as possible, tied tightly and the tube relaxed, hemorrhage is slight and the organ gradually assumes its natural color. If by the time the sutures are inserted and tied it looks bulky, it can usually be made to contract by manipulation, not directly with the hands, but through a suitable cloth. The size of the incision into the uterus should be sufficient to permit rapid extraction of the fetus without further laceration, and a one-half inch incision is a small matter as compared to the accident of tearing the uterine substance. SINCLAIR rejects the German method of incising the fundus, which he thinks in any case should be left free. When it is made in the most obvious position, the middle third in front and in the median line, it sinks down and comes in contact and adheres to the abdominal wound. A month or six weeks later the uterus is found exactly where it would be after a successful ventrofixation operation. Symphysiotomy, he believes, is dying out and getting to be obsolete, which he thinks is the better for humanity. As regards premature labor, it would be just as well to perform craniotomy as to wait until the twenty-eighth or thirtieth week, when a viable child cannot pass. If we look at the indications for CESAREAN section, and compare them with those for the indication of premature labor, one cannot fail to be impressed with the shortening of the one and the extension of the other.—*Jour. Amer. Med. Assoc.*

Abdominal Hysterectomy.

BENNET BOWEN (*Gazette de Gynecol.*) makes the following points as to this method of removing the uterus: (1) Anatomical considerations show that the cancerous focus

beginning in the uterus, alone spreads very rapidly to the next adjoining tissues, i. e., vagina, broad ligaments, ovaries, and lymphatic glands, often in a most precocious manner, so that it is quite impossible to diagnose when such invasion has begun. (2) Therefore, an operation which purports radical cure must aim at ablating all these tissues, even including the lymph-glands. (3) Manifestly the only means of doing this well, even theoretically, is by the abdominal route. (4) Since it is not possible to remove all the lymphatics, the operation should be practically contraindicated if more than the uterus is diseased. (5) In order to establish good statistics of this operation, some such basis of comparison must be established, and even microscopical examination of the uterus and of its lymphatics must be made.

Cysts of the Ligamentum Latum.

ROBINSON has made a study of cysts of the ligamentum latum in 100 cases, and finds their kinds and location as follows: (1) Supraoviductal in 7%. (2) Of the diaphragmatic band in 65%. (3) Cysts of the mesonephritic uriferous tubules in 33%. (4) Of the mesosalpinx in 25%. (5) Hydroparasalpingeal cysts in 25%. (6) Cysts of the mesonephritic duct (GARTNER'S duct) in 30%. (7) Lymph cysts of the ligamentum latum in 25%. (8) CHIARI'S cysts he was unable to confirm, not being able to state any. (9) KOEHL'S cysts occurred in 45%. (10) Cysts of the proximal end of the oviduct in only 2%. (11) Cysts under the perisalpinx are not easy to distinguish and no numerical estimation was attempted. (12) Cysts, fragments of the adrenals in the ligamentum latum, no estimation made. (13) Cysts of the fimbriae occur less frequently than is supposed. The macroscopic cysts in 100 subjects constituted 90%, and their division is as follows: A. From the pronephros. (1) Hydroparasalpingeal cysts 25%. (2) Lymph cysts 25%. (3) Cysts (hydatid) of MORGAGNI, 6%. (4) Cysts of the proximal end of the oviduct 2%. (5) Cysts of the fimbriae 2%. (6) Cysts under the perisalpinx none. (7) CHIARI'S cyst none. B. From the mesonephros. (8) KOEHL'S cysts in 45%. (9) Cysts of the mesonephritic uriferous tubules in 38%. (10) Cysts of the mesonephritic duct in 30%. (11) Cysts of the mesosalpinx in 25%. (12) Supraoviductal cysts in 7%.—*Phil. Med. Jour.*

Treatment of Gonorrhœa in Women.

M. JANET (*Ann. d. mal. d. org. genito-urinx.*) made a communication on this subject to the International Congress in Paris. A recent gonorrhœa in the female may affect the urethra, the glands of SKENE and BARTHOLIN, the vagina, and the cervix uteri. At each examination one should discover which of them is affected, and apply the treatment accordingly. The urethra is irrigated with a caudal, so constructed as to furnish a recurrent stream with permanganate solution of the strength of $\frac{1}{2}$ to 1 per cent. A short catheter may also be used to wash out and fill the bladder; the patient then passes the solution and irrigates the urethra in so doing. When SKENE'S glands open outside the urethra, they are emptied by pressure and washed out with permanganate solution 1 to 500 by means of a syringe provided with a fine soft caudal; when they open into the urethra, the lips of the meatus are separated by a bivalve speculum, the openings of the ducts are searched for, and the glands washed out in the same way. BARTHOLIN'S glands are also emptied by pressure, and are washed out with the same solution. The vagina is irrigated with permanganate solution 1 to 2000, and the cervix is swabbed out with cotton-wool, soaked with the permanganate solution 1 per cent. The permanganate may be replaced by protargol, in the strength of 2 per cent. for the cervix, 1 per cent. for the glands, and $\frac{1}{2}$ per cent. for the urethra.—*Elix. Med. Jour.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Motor Functions of the Intestine.

SABBATANI and PASOLA, in investigating the possibility of antiperistalsis, rejected the method of direct observation of the response of the intestine to artificial stimuli as offering conditions too artificial to give valuable results. They relied upon the following experiments, in which all operations were performed aseptically: (1) A portion of small intestine was isolated and then reversed, its lower end being sutured to the upper stump, and *vice versa*. Great care was taken to avoid danger of occlusion of the gut or strangulation of the vessels. Twenty-four operations were performed. (a) In those cases in which the whole of the jejunum and ileum, or all except the last 15 centimetres of the ileum, was reversed, death occurred within forty-eight hours of the operation from rupture of the superior suture and peritonitis; (b) animals who had a limited portion of intestine (15 to 100 centimetres) reversed, thrived for a time, but ultimately wasted. *Post-mortem*, either perforation through the upper suture was found, or a great dilatation at this point caused by a collection of the indigestible part of the food. (2) After suturing, so that the food from the duodenum might take two ways, one in a normal anatomical direction, the other reversed, the animals thrived: when killed, the reversed portion was found shrunken and empty. (3) After division of the intestine, sutures were so applied as to leave a *cul-de-sac*, with an ascending or descending function, according as it consisted of the upper or lower portion of the divided intestine. If the diverticulum belonged to the upper portion, it was found full and dilated at the necropsy; if to the lower, empty and small. (4) Fistulas were made after section of the gut, by the suture of one cut end to the skin, continuity of the canal being obtained by lateral suture of the other end. If the upper part of the intestine formed the fistula, there was much loss of nutritive material, rapid wasting, and death. If the lower, there was little or no discharge and indefinite survival. Experiments were also made on isolated portions of small gut with both ends attached to the skin, restoration of the canal having been effected. Small wooden balls attached to threads were found to travel in the direction of normal peristalsis only. From the various experiments, it is concluded: (1) That physiological direction of intestinal movement is stable, and that adaptation does not occur; (2) that neither in physiological nor pathological conditions do antiperistaltic movements take place; (3) that for the passage of solids peristalsis is indispensable. Regurgitation of liquids may occur without active peristalsis.—*Brit. Med. Jour.*

New Delicate Sugar Reaction.

N. RIEGLER describes a new phenyl hydrazin reaction said to be of great delicacy. Twenty drops of urine are placed in a watch glass and a knife point of white pure phenyl hydrazin hydrochlorate, a somewhat larger amount of sodium acetate, and forty drops of water are added. The mixture is brought to a boil over an alcohol lamp and then shaken with two and a half drachms of ten per cent. caustic soda solution. If sugar is present in amounts over 0.1 per cent., a reddish-violet color will appear in a few seconds. It is to be noted that the color is to be observed by transmitted light, that the whole fluid and not a possible precipitate of phosphates alone must be coloured, and that the coloration should appear within five minutes, as even normal urine may give it after this length of time has elapsed.

Pathology of Diabetic Coma.

ACCORDING to the *Maryland Medical Journal*, KARL GAUBE has an article on the Pathology of Diabetic Coma in the *Arch. f. Exp. pathol.*

To test the assertion of STERNBERG that diabetic coma is due to the presence of beta-amido-butyric acid in the blood, the author studied graphically the changes in respiration and circulation brought about by the injection of this substance into cats. Coma, or a comatose condition, was attained in every case. The respiration was markedly affected, and GAUBE thinks in an exactly parallel manner to the characteristic respiration of diabetic coma in man. The heart-beat became stronger and the blood-pressure high. In the urine acetone was constantly noted. GAUBE believes that this coma caused by beta-butyric acid in cats is similar to ordinary diabetic coma.—*Charlotte Med. Jour.*

Congenital Transmission of Tuberculosis through the Placenta.

D'ARRIGO remarks that inheritance of tuberculosis may conceivably take place in three ways: (a) By the inoculation of the impregnated ovum by spermatic fluid containing the bacillus; (b) by infection in a tuberculous ovary; (c) by the passage of the bacillus into the foetus through the placenta. He has never been able to find the tubercle bacillus in the spermatic fluid of infected guinea-pigs or in that of men affected with tuberculosis, except in the presence of disease of the generative organs themselves, or in the ovaries of women who have died from tuberculosis elsewhere. In experimentally investigating the third possible method of transmission, the bacillus must be demonstrated simultaneously in the placenta and in the foetal organs in order to exclude infection by contagion at birth. Guinea-pigs were used. A certain number were infected, and then impregnated by healthy males; others were first impregnated and then infected. The latter nearly all aborted, but in one which did not, tuberculous lesions were found in the placenta and in the foetal liver. Those first infected and then impregnated showed tuberculous lesions varying with the period at which they were killed. The lesions occur in the following order: Utero-placental vessels, tissue of caduca, foetal vessels, chorion, and then that foetal organ in most direct connection with the maternal circulation, the liver. The animals born at full term and left alive all died in from five to sixteen days from general tuberculosis with lesions in the liver, spleen, lungs, mesenteric and mediastinal glands.—*Brit. Med. Jour.*

Toxicity of Different Specimens of Bacillus Coli Communis.

HARRIS (*Jour. Path. and Bacteriol.*, Edin. and London) has made a useful contribution to this difficult subject. In his experiments he used only those cultures of *B. coli* which satisfied the three following tests:—(1) Non-liquefaction of gelatin; (2) the production of indol in peptone broth within one to one and a half days; (3) the curdling of milk when incubated at about 37° C. Guinea-pigs and rabbits were used, and the greatest effect was obtained by intraperitoneal injection, next by intravenous, and least subcutaneously. Toxic results were obtained with some cultures and none with others, about half of his experiments being non-lethal with ordinary doses. He suggests three possible explanations—(1) Toxicity is a non-specific property, which is lost under certain circumstances. If this be so, it is difficult to account for some species retaining and others losing it when cultivated under exactly similar circumstances. (2) The *B. coli* is of itself primarily a non-toxic organism, but that, when cultivated under certain conditions, the non-specific property of toxicity may be impressed upon it. If this be so, why are not all species brought to the same degree of toxicity by the same artificial means? (3) The term *B. coli* includes different species of organisms, which can be divided into at least two groups, namely, those isolated from inflammatory exudations which are toxic, and those from water, sewage, etc., which are hardly, if at all, toxic. The author is inclined to agree with this view, and thinks it as reasonable to separate them into different species, because of their markedly different effects upon animals, as to include them under one species, because they agree in their morphological and growth characters. This is in keeping with the results obtained by several observers, namely, the nervous symptoms of atrophic paraplegia, accompanied by changes in the spinal cord, indicating anterior poliomyelitis after inoculation with some, but not all, specimens of *B. coli*. The human diseases in which organisms belonging to the group of the colic bacillus have been isolated are peritonitis, enteritis, cholera nostras, epidemic diarrhoea, pleurisy, meningitis, cystitis, etc. In the cases in which the bacillus is cultivated from the blood, its causal relation to the disease is almost certain, but its connection with such affections as diarrhoea and enteritis is not clear, unless the blood is proved to contain it in great numbers. Its presence in cholera stools, in inflammatory exudations, etc., is almost pure culture, might be explained on the supposition that in these cases the bacillus has provided for it a particularly favourable nutrient medium for growth.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Recent Views on the Effects of Alcohol.

THE conclusion reached by Professor ATWATER, as a result of experiments conducted by him last year to determine the effects of alcohol on the human system, that the substance taken in small quantities and under certain conditions is a food, has given rise to much and bitter discussion. The garbled accounts given in the newspapers of Dr. ATWATER's findings are chiefly responsible for this state of affairs. Many of these journals proclaimed that the professor had proved alcohol as a beverage to be harmless, whereas in fact he went no further than to declare that it is oxidised in the same manner as any other food materials, and is transformed into heat and muscular energy. The experiments were not sufficiently prolonged to demonstrate what the effects might be upon the human organism of the habitual use of alcohol, nor was any attempt made to show that such use would be anything but harmful.

Another pronouncement on the same question has been recently made by the well-known Viennese clinician, Professor MAX KASSOWITZ, who asserts that the dogma concerning the nourishing and strengthening character of alcohol is one of the fatal errors of science. He holds the view that the majority of physicians take up an inconsistent position with regard to the use of alcohol, for the reason that while they are well aware of its dangerous and poisonous qualities, they nevertheless contribute to making permanent the false ideas concerning the value and effects of alcohol which are so generally disseminated. KASSOWITZ explains these inconsistencies on the ground that the teaching which considers alcohol a food because it is burned in the organism, has held its ground in spite of many disregarded newer investigations which have shown its indefensibility. He is therefore of the opinion that the assumption ascribing food properties to alcohol based on simple theoretical consideration is a grave scientific error, the removal of which is the most important preliminary condition to an effectual battle against alcoholism.

Dr. HERMANN BLOCHER, of Basle, Switzerland, in an article in the *Internationale Monatsschrift für die Bekämpfung der Trunksitten* for April, comments very favorably upon Professor KASSOWITZ'S utterances, and discusses the matter from the standpoint of physiological experiment. He refers to the investigations of MIERA, which indicate that alcohol belongs to the same group of substances as glycerin, lactic acid, butyric acid, and so forth, which are indeed burned in the animal body, but which nevertheless are not fit, even to the smallest extent, to take the place of necessary food in the preservation of the body. MIERA found that the addition of alcohol to the food before its being taken not only causes no diminution of the nitrogen output, and does not prevent the loss of body material (as is the case with the addition of sugar or fat), but that, on the contrary, the nitrogen output following this addition of alcohol may become yet greater than it had been without this addition.

Professor ATWATER did not pretend in his experiments to prove the innocuousness of alcohol as a beverage, and it was due to the newspapers that such a belief was disseminated. Whether alcohol in small amounts and used with discretion is harmful has yet to be clearly proved.—*New York Med. Rec.*

Dangers of Holy Water.

THE sources of accidental poisoning are continually being found in unexpected places. In an Austrian contemporary is mentioned the following interesting case:—

An estimable citizen of Holland named BRUNS went with his little seven-year-old son to church. A few minutes after they had entered, the son complained of pain in his left eye, and on being asked the cause of the trouble said that as he crossed himself on entering the church a drop of holy water had entered the eye, and that it was now very painful. The father took the boy to the family physician, who applied simple remedies, but instead of improving, the eye became worse, and a panophthalmitis of alarming virulence ensued. The boy was taken to Professor KRAZEMAN, of Utrecht, the celebrated ophthalmologist, and after several painful opera-

tions he finally recovered. A bacteriological examination of this water revealed a state of affairs which easily accounted for this episode. In addition to all sorts of decomposing substances, fibres, and so forth, pathogenic bacilli were found in abundance. Large numbers of fecal bacilli were present, and the septic character of the water was shown to be of the gravest kind. How easily holy water can become contaminated is readily seen. In Holland, as elsewhere, poor people in restricted circumstances, and in whom cleanliness is not a cardinal virtue, use the water daily. A poor mother makes her beds, washes and dresses her baby, probably adjusts its diaper, and then possibly without washing her hands goes to church. The result can only be one way.

It is said that the case above recounted has been the means of the invention by a young priest of a receptacle for holy water, whereby it shall escape drop by drop, and so avoid the infection which must be brought it by the unclean hands of the devout and pious-minded worshippers. The Bishop of Utrecht is also said to have given his sanction and approval to this salutary and hygienic reform.

The medical press has frequently called attention to the dangers which may lurk in the common communion cup, from its use by syphilitics, diphtheritics, and others. It is of course a grave and difficult matter at times to suggest modifications in the established order of things ecclesiastical, but it is to be hoped that the cause of cleanliness may find some way in which to become triumphant.—*Medical Age.*

Must Order Trial of Sanity on Physician's Affidavit.

THE Supreme Court of Georgia holds, in *Sears vs. State*, that when a practising physician has made an affidavit that a person who has been convicted in a superior court of that State for the crime of murder, and has been sentenced by the judge of that court to be hanged, has been by the affiant examined since the sentence and conviction, and discovered to be, at the time of the examination and of making his affidavit, insane, and in such mental condition that the question of his sanity should be tried before a jury under the terms of the law, and when this affidavit has been duly presented to the judge for the purpose of procuring a trial on the question of the sanity of such a convict by the superior court of the county in which he has been sentenced, it is the imperative duty of the judge to order such trial, and to have a jury impanelled, as provided by the statute, for the determination of this question.—*Jour. Amer. Med. Assoc.*

Effect of Judgment for Services on Malpractice Case.

THE Supreme Court of Tennessee was cited, in the case of *Sale vs. Eichberg*, to two apparently conflicting classes of cases as to the effect of a recovery by a physician of a judgment for services on a subsequent action by the patient for malpractice. An examination of these cases, however, the court says, will show that they are distinguishable in this important attribute; that, where the judgment for fees is by default, no estoppel, as it is called, arises—that is to say, the judgment is no bar to an action by the patient to recover damages for malpractice; but where there is a judgment for fees on the merits, or a confessed judgment, the matter is *res adjudicata*, as it is termed, and it will bar a subsequent action for malpractice. The supreme court also holds here that in a malpractice case where a practicing physician is called as a witness for the plaintiff and quite freely expresses his opinion in respect of good practice and proper treatment in such cases, the defendant is entitled to test the knowledge of the witness, notwithstanding he disclaims being an expert, by reading or having him read, extracts from standard medical works, on diagnosis and treatment in such cases, and asking the witness whether he agrees or disagrees therewith, and then by comparing his opinion with those of the writer. An instruction for the jury that the law fixes the standard by which the injury shall be measured in a malpractice case, which is "full and complete and ample compensation to the injured person," the court pronounces objectionable, in repeating, and thus emphasizing, to stimulate the jury in assessing damages beyond the rule of ample compensation, the true rule in such cases being compensation.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

Treatment of Typhoid Fever.

DR. F. J. SMITH (*New York Medical Record*) says:—In the treatment of typhoid fever, two principles are of overwhelming importance. These are: (1) The examination (daily) of the stools; and (2) the appetite of the patient (1) In the stools may be found (a) undigested milk or other food, showing that too much food is being given; (b) blood, which, if present in any quantity, calls for the administration of opium; (c) sloughs, the total bulk of which indicates the amount of ulceration; and (d) feculent debris, the desirable constituent of the stools. (2) The appetite of the patient should be, within very wide limits, the sole arbiter of his diet, provided vomiting, hemorrhage, or distension are all absent. The temperature is entirely ignored. Where the appetite is good, a wide range of dietary is allowed; where there is no appetite, the best food is plain cold water. The author has kept patients for days on nothing but water, with the best results. On the first indication of nausea after food, resort should be had to the plain water diet for twelve hours. Tympanitis is an ominous complication and most difficult to treat. The author gives two drachms of sulphate of sodium every two hours until the bowels are acting freely. Constipation should never be allowed to persist. Excessive diarrhoea points either to too much food or to extensive ulceration of the colon. The occurrence of hæmorrhage calls for starvation and opium. Alcohol is unnecessary for the treatment of typhoid fever. The author believes that anti-inoculation is destined to be the universal method of treatment and prophylaxis in typhoid fever.

Treatment of Erysipelas.

N. G. KEBBLE, Jr., reports this treatment, which has met with great success in his hands: The affected area is first enclosed in a painted ring of tincture of iodine. This ring is not to be started at the margin of the reddened area, but from two to three inches from it, and enough coats should be given to cause a slight desquamation of the upper layers of the skin. The whole surface within the ring is to be covered with ichthyol ointment, about one drachm to one to two ounces of vaseline. This is covered with a piece of gauze, and a hot stupe applied and changed about every four hours. At the end of twelve hours the ointment is washed off and a fresh coat applied. If necessary, more iodine may be used. Internal treatment may or may not be given.

Best Cure in Phthisis.

S. BERNHEIM believes that rest, absolute and complete, is the most important element in the treatment of the tuberculous patient. Even the pulmonary gymnastics advocated by many authorities he considers ill-advised and apt to cause progression of the disease, while a state of entire bodily and mental inactivity gives the natural forces the best opportunity to make a stand against the advance of the morbid process. The risks of auto-intoxication are diminished, organic waste is lessened, the functions of the lung and heart are regulated, the febrile movement is controlled, and every possible aid is given to these most important adjuncts in the treatment viz., food and fresh air.—*New York Med. Rec.*

Solation.

MUCH attention should be paid to diet. Food should be liquid and nourishing and given frequently in small quantities. Hot milk is one of the best forms. Home-made broths and preparations of blood are useful. The rectum should be flushed every day or every second day with large quantities of hot water.—A. P. WILLIAMSON.

A Stable Solution of Cocaine.

R. Cocaine hydrochlorat	...	gr. iv.
Aqua destillat	...	3iss.
Acid salicylic	...	gr. ½

—*Jour. de Méd. de Paris.*

Correspondence.

GRANT MEDICAL COLLEGE—DISTRIBUTION OF PRIZES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following report from the *Times of India* will be of interest to your readers:—

"The annual distribution of prizes to the successful students of the Grant Medical College was held on Thursday at the college premises, His Highness the Gaekwar of Baroda presiding. There was a large attendance of ladies and gentlemen taking an interest in the institution. His Highness the Gaekwar was received at the porch by Lieutenant-Colonel HATCH, the Principal, and professors of the college. The European medical students, who were in their uniform, received His Highness with military honours. His Highness having taken his seat on the dais, where the Principal and professors were also seated—

Lieutenant-Colonel W. K. HATCH, I.M.S., the Principal, read the report, and His Highness distributed the prizes.

SPEECH BY THE GAEKWAR OF BARODA.

His Highness, who was heartily received, in the course of his speech, said:—

I think that in India, more than in any other country, the proper recognition of scientific education is a crying need of the day. And certainly this country, more than any other, calls for energetic prosecution of the science which it will be your privilege to apply for the relief of human suffering. The study and treatment of disease is with us an urgent need.

Scientific education is, however, not only needed for the study and treatment of disease, which is after all the business of specialists. In the shape of hygiene it is imperatively needed in the homes and daily life of our people. An intelligent care of health is unknown in India. Consider how many valuable lives have been lost to us which might have been saved by timely measures. It is not long since we were mourning for one of the greatest, the most useful of them all, who passed away in your own city before his work had been done, when his great capacities had not even begun to be exhausted. Health is our most precious possession, because it is the first condition of prolonged usefulness. We should try and save it by care and rest and timely remedies, so that we may have a longer time to do our duty to ourselves and those near to us, and, if it in us lies, to our country. At the same time we must recognize that there are certain rare occasions when all considerations of health must be subordinated to some great and imperative duty. We make great show and spend much money in caste-festivities and Shraddhas, but to my mind the finer reverence, the truer Shraddha, is that done to the living by surrounding them with comfort, guarding their health and prolonging their lives. Yet it would be a mistake to think that Indians have less wish to live than Europeans. I believe they are as much in love with life, and if they do not take as much care to preserve it, it is partly owing to poverty, but still more

to their ignorance of the laws of health. This ignorance alone accounts for the prevalence of disease and insanitary conditions in our country. Not that these things are peculiar to India, for I have noticed somewhat the same insanitary conditions in houses and villages in Italy, Germany, Spain, Turkey, and Egypt; but the bad example of other countries can be no excuse for lassitude in ourselves. We must push forward, whoever lags behind.

Our ignorance shows itself in a thousand ways, of which I will only indicate one or two. It shows itself first in the increase of those minor ailments which, without being immediately fatal, are full of annoyance, trouble and pain, which impair the joy of life and the power of work, and in the end—some sooner, some later—wear down the system. Dyspepsia, diabetes, hysterical and nervous disorders, organic weakness or disturbance which often shows itself in minor signs, such as the rapid decay of teeth: the growth of these and a host of such maladies is extremely marked. And in many of these the organic weakness or predisposition to disease is transmitted hereditarily, punishing the children for the ignorance of the fathers. Yet they are all preventible by a little knowledge and care. Every one must have noticed the unusual prevalence and growth of dyspepsia and diabetes among Indians, especially educated Indians. This is solely due to our ignorance—ignorance of the right proportions of brainwork and physical exercise; ignorance of the fundamental principles of diet; ignorance of what the stomach will bear and what it will not. Certainly few people, if they knew how to keep the digestive power unimpaired, would spare themselves the little care which would save them daily misery and the sapping of their energies.

Again, the mortality of women and of children might be much less than it is. Many things help to increase the list; ignorance of the care of women in childbirth; the dark, dingy, and unventilated rooms in which they lie, sometimes made yet worse by artificial heat and fire; the evil effects of a sedentary life behind the *purdah*; the false dignity that will not condescend to heathy labour. The same ignorance shows itself in some at least of our social customs. I may instance early marriage, the rigid prohibition of widow re-marriage, unsuitable connections between the physically unfit or between very old men and very young girls. A knowledge of the laws of nature and obedience to their inexorable conditions, rather than our prejudices and impossible ideals might lead us to modify these in a salutary direction. They increase child-mortality and the mortality of women. They stunt the physique and weaken the health of future generations. They debilitate a nation, restrict its energy and power of work, and relax its moral fibre. They kill its force, fortitude, and endurance, and leave it too weak to resist the inroads of disease to keep a position in the race for priority; or to prevent its own material downfall and ruin. We may adhere within the limits of reason to our ancient *Shastras*, and yet try to bring ourselves into line with physical laws, which are, after all, of paramount importance.

Instead, then, of cramming the minds of students with information of no practical utility, such as the more useless parts of geography, we might give them a fair knowledge of the first principles of health and sanitation. Such instruction would be by far the most effective agent for promoting both hygienic and other reforms. It would also make the difficult problem of sanitation in India easy to solve. The great stumbling block of sanitation in India is, even more than poverty, the passive unwillingness of the people, and the whole root of that unwillingness is ignorance. To force sanitation on an unwilling people is beyond the power of rulers and beyond the power of men. The strength of accumulated inertia must in the end baffle the most actively benevolent Government, for against ignorance the gods themselves fight in vain. Some knowledge of science would go a great way to remove the difficulty. It is not enough to tell them that sanitation is good; they must feel it as a part of their own knowledge.

INDIAN MEDICINES.

There is one subject of considerable importance which, from time to time, seems to attract attention—the desirability of investigating and encouraging Indian medicines. This is a subject in which I have myself taken interest. In medicine, as in other branches, it has always been my desire that our people should know what progress our ancestors had made, and test it in the light of modern knowledge. It is always a pity when old customs and arts are abandoned, not after reasoned consideration, but because it is fashionable to abandon them. At the same time it would be a great folly to cling to the past, when it is in conflict with science and utility, merely because it is the past. Medicine is a department in which life is at stake, and the physician should feel firm ground beneath him, not following where his fancy leads, but resorting to such remedies as are approved to be the best. Whatever is good in our knowledge we should try to preserve—but from reason and science, not from fashion and sentiment.

It therefore seems to me the wisest expedient for the preservation of the Indian system to give scholarships for its study to those who have studied and taken diplomas in Western medicine, so that they may be able to assimilate what is good in either system. This would be better than merely encouraging men who are not in a position to examine the soundness of the method by scientific tests.

In the domain of pharmacology a great deal more should be done towards finding out qualities of Indian drugs and ascertaining how far they can be utilized. I once offered a Chair to this college with this object, but nothing much came out of it. If the use of these drugs were once based on competent scientific knowledge, and with an eye on our climate and constitution, the necessity of preparation on a large scale might open a new source of industry.

Some of you will soon be practising as physicians. To these I would address a few words of advice. In the relations—the almost fiduciary relations—between a doctor and his clients, the gifts which have always helped

to secure and keep a large practice are sympathy and engaging manners. The old Indian doctors used to recite mantras when administering a medicine. Now that the ignorance and spirit of faith to which this simple method of commanding confidence addressed itself is dying out, sympathy and good manners must be your mantras. Cultivate, therefore, a spirit of sympathy; let your manners please and command confidence. Yet, though tact and consideration are so important, they must not be given importance at the cost of injury to the patient. Popularity must be subordinated to his real welfare. A physician must above all have firmness and the courage of his convictions. He should not be swayed by vague and baseless considerations which have nothing to do with the application of his science. If he is, he is acting in a manner derogatory to his profession.

An Indian doctor ought also to pay special attention to the food of invalids. He should know the diet of all the classes of patients he is likely to come across. Ignorance in this particular sometimes leads to improper directions being given. But nursing and food are such large and important questions that I cannot dwell on them here. I will only say that doctors might exact a great deal more attention than they do from those in attendance on the sick, for those who attend on the sick are usually so ignorant that their well-meant kindness often proves no kindness at all, but rather poison to the patient. Neglect in small trifles also often leads to serious results. The profession you will embrace is a great, benevolent, and worthy one, and I trust you will embrace it worthily and pursue it thoroughly. We cannot, as in Europe, have specialists and separate hospitals for different diseases; still it is the duty of every one to try and mitigate human suffering; and a great deal can be done in this direction, both by private individuals and by bodies of men.

Instances may be pointed out in earlier Indian history of Indian Kings and Emperors providing dispensaries and other medical assistance to their subjects. But I doubt whether any one can point out any such prince who has systematically provided so many dispensaries, hospitals, and various methods of bringing medical aid home to the doors of the greatest possible number of people. It is in Europe that this has first been done, mainly by the humane enterprise of private charity. Let us gratefully remember that the British Government has been the first Government to bring it into India, and again, the first Government which has recognized provision of medical aid as the duty of the State. And let us hope that it will establish a yet further claim to the gratitude of the country by continuing to develop this wise and benevolent policy in the increase of medical aid and sanitation in the villages and in the larger supply of doctors, trained nurses, and midwives. Let me also suggest the establishment of an institution for imparting a fair knowledge of the Western science in addition to their own to Vaidyas, Hakims, and similar classes, who are often the only sort of medical practitioners within reach of the poorer people. But these, although we cannot expect from them the same knowledge as from graduates, should have at least some acquaintance with the English

language; otherwise they would not be able to add to the knowledge imparted by studying the most recent developments in the only medium where they are to be found—the languages of Europe. Practitioners so instructed in a State institution, and commanding confidence by the possession of State certificates or diplomas, would honorably fill up a large field, now supplied only with unscientific practitioners, and round off the medical system of the country.

The Native States have followed the example set them, often to an extent not realized outside. In Baroda, for instance, it has been introduced with a yet further modification. Municipal taxation has not been imposed as yet, and let us hope circumstances will allow us long to continue that happy exemption; yet almost every town of a population of 7,000 and more is provided with a dispensary, the total number reaching 51. There is also a system of town and village sanitation in the former cases, with carefully worked out rules and regulations and with elected members. These may admit of improvement by increased effectiveness of working; but the means have been provided and a beginning made. Nor have I any doubt that other States have made some such advance.

Lieut.-Col. H. P. DIMMOCK, I.M.S., seconded the proposition, which was carried by acclamation.

His Highness having acknowledged the compliment, the proceedings terminated.

Before His Highness left, he was decorated with a garland of flowers by a Hindu lady student of the college."

Yours, &c.,
L. M. & S., BOMBAY.

ORIENTAL HUMBUG.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Here is an advertisement out from *The Bengalee* :—

"THE ORIENTAL MEDICAL ASSOCIATION."

"*Plague Cases treated successfully with Snake-venom Pills.*"

"Numerous hopeless cases of plague have been cured by Dr. HEM CHANDRA SEN, M.D., of the Calcutta University (Teacher of Materia Medica, Campbell Medical School and Physician, Campbell Hospital), during the last epidemic of plague in Calcutta with snake-venom pills prepared by us. Many of those men who have recovered from the virulent attack of the plague are yet alive in Calcutta to bear testimony to the efficacy of this snake-venom remedy in plague.

Every family ought to be provided with this remedy during an epidemic. The early treatment with this remedy is begun in plague cases, the better, for no treatment is of any avail when the oxygenating power of the blood is dangerously reduced.

Any one from the most desirous of having this medicine is requested to apply to the undersigned. Full directions as to the treatment with this remedy accompany

each box. The price for one box of this medicine sufficient to cure one virulent case of plague is Rs. 5 only. Half price for the poor who will be able to submit reliable reference.

Obstinate cases of any disease are treated by us on receipt of concise account of the ailment. Prescriptions are sent with or without medicine to any part of India, provided answers are sent on questions asked for.

All sorts of oriental medicine prepared according to the Oriental and European principles by our Association are kept ready in stock for sale. Reliable indigenous drugs are also supplied. Genuineness guaranteed.

SARAT CHANDRA SEN GUPTA,
(Kaviraj) Secretary,
Oriental Medical Association.

15, BOMLA STREET, CALCUTTA."

Surely the advertisement is wrong. Why does a Calcutta M. D. mix himself up with Kavirages.

Has the Campbell Hospital no respect for professional ethics!

Yours, &c.,
L. M. S.

MILITARY NATIVE MEDICAL SUBORDINATES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—May I request you to be good enough to invite the kind attention of the Supreme Medical Authorities, through your valuable paper, to the following points concerning the military native medical subordinates :—

1. The Senior Hospital Assistants, who have now been granted rank as Native Commissioned Officers, may also be entitled to all the privileges which are attached to native officers, such as the military honorary distinction of Bahadur and Sardar Bahadur, with allowance, in lieu of Khan Sahib, Khan Bahadur, and Rai Bahadur, which are purely the civil distinctions, and do seem to suit well the military men; also the grant of land and full pay with free passage on sick leave and furlough.

2. The scale of donation batta for field service, the gratuity for service in a foreign country, the allowances on account of medical and additional sub-medical charge, the family pension on account of being killed in action and wounds received on active service, and for deaths due to causes contracted on field and foreign service, may also be made equivalent to that as laid down for native officers.

3. The first, second and third class Hospital Assistants who have now been granted rank as native Warrant Officers, but continue to receive as before the gratuity and donation batta for field and foreign service, and allowances on account of medical and additional sub-medical charge at the present scale, which is equivalent to that as allowed for native non-commissioned officers, may be allowed a little higher rate, which seems to be most desirable.

4. Further, I beg to state that the establishment of Senior Hospital Assistants, which is at present to the pro-

portion of 10 per cent. on total strength of the members of the Hospital Assistant class, may be raised to 25 per cent. (12½ per cent. in each grade) as sanctioned for the Military Assistant Surgeons, according to paragraph 253, Army Regulations, India, Volume VI (Medical).)

5. The present title of Hospital Assistants may be abolished and substituted with Jamadar and Subedar for senior classes, and native Sub-conductor and Conductor for the rest of the three classes, with the letters I. M. S. to distinguish the profession.

In conclusion, I beg to be excused for the trouble which I am giving you on behalf of the native medical subordinate staff, and expect that through your assistance it will produce a favourable result, for which not only I, but thousands will thank you.

Yours, &c.,

SHEIKH NABI BAKHSH,
1st Class Military Hospital Assistant,
In Medical Charge, Civil Dispensary, Mombasa,
East Africa.

THE ENTRANCE COMPETITIVE EXAMINATION FOR CANDIDATES FOR THE MILITARY ASSISTANT SURGEONS' SERVICE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—It may interest your readers to know the scope of the preliminary examination for admission to medical study for Military Assistant Surgeons. I therefore send annexed questions set for the

EXAMINATION IN APRIL 1901.

Mathematics.

1. If a cistern full of water is 6 yds. 2 ft. long, 4 yds. wide, and 6 ft. deep, how much water must be taken out to lower the surface by 24 inches?

2. Divide Rs. 700 into an equal number of eight-anna pieces, four-anna pieces, and two-anna pieces.

If two-thirds of a school term exceed one-half of it by 13½ days, how many days are there in the whole term?

3. Simplify :—

$$\left(\frac{a-b}{a+b} + \frac{a+b}{a-b}\right) \div \left(\frac{a^2-b^2}{a^2+b^2} + \frac{a^2+b^2}{a^2-b^2}\right).$$

Resolve into factors :—

$$8x^2 + (y+a)^2$$

4. A privateer running at the rate of 10 miles an hour discovers a ship 18 miles off running at the rate of 8 miles an hour: how many miles can the ship run before it is overtaken?

5. In a given straight line find a point such that the perpendiculars drawn from it to two given straight lines which intersect shall be equal.

6. If $ABCD$ be a quadrilateral having its sides AB AD equal, and the angles ABC , ADC equal, show that the diagonal AC bisects the diagonal BD at right angles.

History and Geography.

1. Describe some of the measures connected with the internal administration of India which received attention during the Government of Lord AMHERST, Lord WILLIAM BENTINCK, and Lord AUCKLAND.

2. When, and under what circumstances, was the First Reform Bill passed? What were its leading provisions?

3. Write short historical notes on the following:—

Albuquerque, Toir Mal, the Permanent Settlement, the Lollards, War of the Spanish Succession, Septennial Act.

4. (a) Why are cloudy nights usually warmer than clear ones?

(b) Why is summer warmer than winter?

5. What are the chief articles of exports from Australia and Burma, and of imports into India?

6. What do you know of Khartoum, Havana, Cyprus, Melbourne, Niger and Sheffield?

Of course there were other papers in English, etc.

Yours, etc.,
CANDIDATE.

SOLDIERS TREATED BY CIVIL PRACTITIONERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your correspondent, "CIVIL ASSISTANT SURGEON," in his letter published in your issue of the 3rd April 1901, is labouring under a mistake when he thinks that "Tommyes" and "N.C. officers" go for treatment to Civil Assistant Surgeons in their belief that these men are a smarter lot than their confrères in the military. "CIVIL ASSISTANT SURGEON" is probably not aware that when a soldier reports sick at the station hospital, he is, as a rule, admitted as an in-patient. Now there are a certain number of men in the army who simply detest the idea of going into a hospital owing to their dislike to throw extra work on their comrades, when they could easily do their duty and be treated for their complaint outside hospital; and there are others who are married and who prefer to take their medicines at home and be looked after by their family rather than go into hospital. It is the object of these men to keep clear of the station hospital and Military Assistant Surgeons for treatment, for fear of being admitted into hospital. I must here mention, for "CIVIL ASSISTANT SURGEON'S" edification, that Military Assistant Surgeons are not allowed to treat soldiers privately, and further

that, if they are aware of a man trying to conceal his illness and keeping out of hospital, they are bound to report the matter.

Yours, &c.,
MILITARY ASSISTANT SURGEON.

THE MAGISTRATE AND THE HOSPITAL ASSISTANT.

TO THE EDITOR, "INDIAN MEDICAL RECORD".

Sir,—The *Pratidhani* of Comilla reports a duel or fight between a European civilian and an Indian medical officer. This highly edifying scene is said to have been witnessed at a place called Matlabgunj in the Chandpur subdivision. We are told that recently Mr. Vaz, Joint Magistrate and Subdivisional Officer of Chandpur, came to inspect the Matlabgunj Dispensary. The Civil Hospital Assistant in charge of it, Dr. MATHURANATH NATH, somehow or other incurred his displeasure; so much so that the civilian was led to ply his whip on the carcass of the native medico. Now, fortunately or unfortunately, the latter was not trained to receive such treatment even from the lord of the subdivision without a demur. He returned the blows with interest, and the result was that both the combatants carried marks of the fray on their bodies. It would be interesting to watch the development of the case.

Yours, &c.,
HOSPITAL ASSISTANT.

HOUSE ACCOMMODATION OF HOSPITAL ASSISTANTS: A REAL GRIEVANCE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—According to Bengal Barrack Regulations, which is universally in vogue in the sister-presidencies, the house accommodation of a Military Hospital Assistant consists in a single and only room 16-12, a small bath-room, and a zenana compound. Many quarters have been built on this principle in the Madras Presidency at least. There is no provision made for a cook-house or latrine, the want of which keeps the place in a most insanitary condition.

Is this ration of space sufficient to keep a Hospital Assistant and his family in the normal average healthy standard and to hold his belongings? The difficulties arising from want of sufficient accommodation can thus be better imagined than described. I hope, Mr. Editor, you will see something done to remedy the existing want of proper accommodation.

Yours, &c.,
HOSPITAL ASSISTANT.

Government Medical Gazettes.**BOMBAY.**

Lieut.-Colonel K. A. Dalal, M.B., C.M., I. M. S., Civil Surgn., Dhulia, is allowed privilege leave of absence for three months from the date of his relief.

His Excellency the Gov. in Council is pleased to appt. Asst. Surgn. Darabsha Edalji Kothavala, L.M. & S., to act as Civil Surgn., Dhulia, during the absence of Lieut.-Col. K. A. Dalal, M.B., C.M., I. M. S., on privilege leave.

His Excellency the Gov. in Council is pleased to make the following appts.:-

Asst. Surgn. E. Mackenzie to be a Senior Asst. Surgn. *nio* Khan Bahadur Kalkhasru Barjorji Cooper, L.M.

Khan Bahadur Kalkhasru Barjorji Cooper, L.M., to be Civil Surgn., Shikarpur.

These appts. will take effect from the 1st Sept. 1900, the date on which Mr. Cooper was apptd. to act as Civil Surgn., Broach.

Lieut.-Col. H. McCalman, M.D., I. M. S., has been allowed by His Majesty's Secy. of State for India an extension of six months' extraordinary leave on med. certificate without pay.

Lieut.-Col. D. C. Davidson, I. M. S., Civil Surgn., Dharwar, is given an extension by one month of the privilege leave of absence granted to him.

Asst. Surgn. Gungadher Gopal Bopardikar, L. M. & S., has been apptd. Asst. to the Med. Offr., Kathiawar Political Agency, and in ch. West Hosp., Rajkot, from the 1st Feb. 1901.

Major J. R. Stuart, M.B., R.A.M.C., and Capt. H. M. Moore, I.M.S., respectively delivered over and received med. ch. of the Ahmedabad Central Prison on the 27th Feb. 1901, before office hours.

Lieut.-Col. K. A. Dalal, M.B., C.M., I.M.S., and Asst. Surgn. Darabsha E. Kothavalla respectively delivered over and received ch. of the Dhulia Prison on the 7th March 1901.

Asst. Surgn. Varjivandas Damodaradas Merchant, L.M. & S., has been placed on gen. duty from the 1st Feb. 1901.

Major W. A. Corkery, I. M. S., Civil Surgn., Karwar, has been allowed by His Majesty's Secy. of State for India to return to duty within the period of his leave.

MADRAS.

Capt. G. G. Giffard, I. M. S., privilege leave for three months, from or after 31st March 1901, and furlough to Europe without med. certificate for one year and three months.

Capt. C. H. Lest Palk, I.M.S., privilege leave for twenty-four days from date of relief, and furlough to Europe without med. certificate for one year, four months and seven days.

Capt. Clarence Barrimore Harrison, I.M.S., to be Dist. Med. and Sany. Offr., Kistna, in succession to Capt. W. C. Vickers, I.M.S., but to continue to act as Resident Physician, Gen. Hosp., Madras.

Dr. G. M. Anderson to act as Dist. Med. and Sany. Offr., Ganjam, and Supdt. of Jail, Berhampur, during the employment of Capt. E. M. Minton, I.M.S., on other duty.

Capt. C. F. Fennell, I.M.S., Med. Supdt., Central Jail, Rajahmundry, privilege leave for one month and twenty days, from or after the 1st April 1901, and furlough to Europe, without med. certificate, for one year and four months.

PUNJAB.

Hosp. Asst. Shankar Das held ch. of the Teri Dispy. Kohat Dist., from the 28th Jan. to the 15th Feb. 1901 during the absence of Hosp. Asst. Anant Ram at Lahore for examn.

Hosp. Asst. Shankar Das, doing gen. duty at Kohat, to Hangu, in the same dist. for temp. ch. of that dispy. from the 28th Feb. 1901, during the absence of Hosp. Asst. Saif Ali at Lahore for an examn.

Hosp. Asst. Gurmukh Singh from the Chenab Canal Dispy., Chenawan, Gujranwala Dist., to the Gurdaspur Civil Hosp. for gen. duty, which he joined on the 8th Jan. 1901.

Hosp. Asst. Gurmukh Singh, doing gen. duty at Gurdaspur, was apptd. to the ch. of the Srivindpur Dispy. in the same dist. on the 4th March 1901, relieving Hosp. Asst. Hussain Ali.

The following exchange of appts. was made in the interests of the public service:-

Asst. Surgn. Harbhagwan Das, Gujrat Civil Hosp., to the Mayo Salt Mines Dispy., Khewra, Jhelum Dist., which he joined on the 3rd March 1901.

Asst. Surgn. Narsin Singh, Mayo Salt Mines Dispy., Khewra, Jhelum Dist., to the Civil Hosp., Gujrat, which he joined on the 4th March 1901.

On transfer from Delhi, Hosp. Asst. Bhagwan Singh was placed on gen. duty at Jhang from the 18th Feb. 1901.

Hosp. Asst. Bhagwan Singh, doing gen. duty at Jhang, was apptd. to the Jail and Police Hosps. at that stn. from the 4th March 1901, relieving Hosp. Asst. Balwant Singh.

Temp. Asst. Surgn. Thakur Das while in temp. ch. of the Sadr. Dispy. Hissar, was placed in med. ch. of the Poor House at that stn. in addn. to his own duties, from the 16th March to the 31st Aug. 1900.

The following Hosp. Assts. on plague duty in the Hoshiarpur and Jullundur Dist., were transferred to the Gurdaspur and Sialkot Dist. for plague duty, from the dates noted against their names:-

Jowahir Mal,—23rd Feb.; Ganga Ram,—24th Feb.; Muhammed Ibrahim,—23rd Feb. 1901.

Asst. Surgn. Guranditta Mal resumed ch. of his duties as Asst. Chemical Examiner to Govt., Punjab, and Lecturer on Midwifery and Med. Jurisprudence, Lahore Med. Coll., on the 9th March 1901.

Asst. Surgn. Balmokand, doing gen. duty at Muzaffargarh, to Bhakkar, Dera Ismail Khan Dist., for gen. duty which he joined on the 4th March 1901.

Hosp. Asst. Hari Singh, doing gen. duty at Rawalpindi, was apptd. to the Banjar Dispy., Kangra Dist., on the 7th March 1901, relieving Hosp. Asst. Dittu Ram.

Hosp. Asst. Hari Singh reported himself to the Civil Surgn., Rawalpindi, for gen. duty, on the 20th Feb. 1901.

Hosp. Asst. Mirza Imdad Beg resumed ch. of the Rawalpindi Police Hosp. on the 10th March 1901, relieving Hosp. Asst. Ghulam Haider, who was granted privilege leave for 2½ months from that date.

The following transfers among Hosp. Assts. in the Gujrat Dist. were made in the interests of the public service:-

Hosp. Asst. Gyan Chand from the Aurangabad to the Dinga Dispy., 5th March; Hosp. Asst. Nanak Chand from the

Diagn to the Karianwala Dispy., 7th March; Hosp. Asst. Lal Chand from the Karianwala to the Kunjah Dispy., 6th March; Hosp. Asst. Abdulla from the Kunjah to the Aurangabad Dispy., 7th March, 1901.

Hosp. Asst. Shām Lal, Jail Hosp., Dera Ghazi Khan, was transferred to the tempy. ch. of the Rojhan Dispy. in the same dist. from the 21st Jan. to the 4th Feb. 1901, during the absence of Hosp. Asst. Karim Baksh at Lahore.

BURMA.

Hosp. Asst. M. L. Subba Iyer is hereby granted one month's privilege leave from the 11th Dec. 1900.

Hosp. Asst. Maung Maung assumed ch. of additional duties at the Police Hosp., Taunggyi, Southern Shan States, on the 1st Jan. 1901.

Hosp. Asst. S. Bastian relinquished ch. of his duties with No. 1, Southern Chin Hills Column, at Falam, on the 26th Feb. 1901 and assumed ch. at the Police Hosp. Falam, Chin Hills.

Hosp. Asst. Daniel Paul relinquished ch. of his duties with No. 2, Southern Chin Hills Column, at Falam, on the 20th Feb. 1901 and assumed ch. at the Police Hosp. Falam, Chin Hills.

Mily. Asst. Surgn. P. McCarthy made over, and Dr. W. J. Buchanan assumed, ch. of the Civil Surgency of the Tharrawaddy dist. on the 12th March 1901.

Hosp. Asst. Bhoia Ram, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on 13th March 1901, as a supy.

Hosp. Asst. Brij Lal, on transfer to Mandalay, relinquished ch. of his duties with the Mandalay-Kunlon Ry. at Lashio, Northern Shan States, on the 18th Feb. 1901.

Hosp. Asst. Shaik Allah Rakha assumed ch. of his duties with the Southern Chin Hills escort at Pokokku on the 18th Feb. 1901.

Hosp. Asst. Behari Lal relinquished ch. at the Gen. Hosp., Rangoon, on the 17th Feb. 1901 and assumed ch. at the Police Hosp., Pokokku, on the 22nd Feb. 1901.

Hosp. Asst. J. N. Rai Chowdery is granted an extension of two months' leave on med. certificate in continuation of the leave granted him on the 14th Feb. 1901.

Hosp. Asst. Ram Prasad Singha was on deputation at Kamaing, Mogaung subdivn., from the 17th to the 24th Nov. 1900.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

DEATH.

IN MEMORIAM.

LEOPOLD.—In ever sad and loving memory of my dearly beloved husband, Surgeon-Captain George Thornhill, who went to his rest in peace 12th April 1899, very deeply regretted.

His words were kindness, his deeds were love.
His spirit humbles, her eyes avenge.

NOTICES TO CORRESPONDENTS.

M. A. C. (Bombay).—Your paper has already appeared.

K. G. A. (Medar).—Arsensura is an American preparation, and, as far as we know, is not to be had in India.

A. M. L. (Mandalay).—Your suggestions re Provident Fund are very satisfactory.

T. W. D. (Kasauli).—The accounts of the W. M. O. Provident Fund are now nearly ready. To itemize them has been an exceedingly difficult and tedious matter.

N. L. B. (Calcutta).—Apply for the advice of the medical man nearest your house.

Lieut.-Col., I.M.S.—We regret we cannot publish your letter. It is too abusive of Civil Assistant Surgeons.

M. L. (Lucknow).—Your article has been published.

T. G. A. (Lashkar).—Many thanks.

J. M. P. (Aden).—We can only support correspondents when we approve of their views. We publish letters, though we do not often approve of them.

M. D. G. (Karachi).—If you hold any qualification from a Government medical college or school, you can be admitted into the I. M. A. We cannot accept a certificate from a bogus school.

A. B. (Karachi).—Many thanks.

J. P. M. (Dhobra).—Get DeSchweinitz on Eye Diseases from the Medical Agency.

C. A. P. (Poona).—You are elected to the I. M. A.

F. H. A. (Rander).—Consult a medical man.

M. I. P. (Kampti).—Your letter will appear in an early number.

A. V. B. (Chudderghat).—Certificates of membership to paid-up subscribers in the I. M. A. will be forwarded to them shortly.

R. W. McA. (Lucknow).—The accounts are nearly ready, and you will probably receive full details within a month.

F. R. (Hyderabad).—Coates' Pathology, Ringer's Therapeutics, Roberts' Medicine, Whittle's Materia Medica, are books that will greatly help you in the examination.

J. C. B. (Kurigram).—See notices in this number.

S. S. A. (Cocoanada).—We offer special prizes for articles written for this journal. Please read notice about the same.

A. J. P. (Tientsen).—Many thanks: already notified.

V. L. M. (Bombay).—We wish you every success.

F. V. (Sholapur).—We shall be glad to recommend you.

K. R. (Fyzabad).—Your case is a hard one, and deserves exposure.

A. W. (Sealdah).—Your interesting article has already appeared.

P. M. (Muttra).—You will find all the information you need in the *Medical Register and Directory of the Indian Empire*. We shall be glad to assist you with further information of a special character when you are leaving India.

ORIGINAL ARTICLES.

SOME RECENT RESEARCHES ON ALCOHOL :
THEIR BEARING ON TREATMENT.*

By J. MACKIE WHYTE, M.D.,

*Physician to Dundee Royal Infirmary; Lecturer on
Clinical Medicine, University of St. Andrews.*

DURING the latter half of the nineteenth century the movement in favour of temperance in the use of alcoholic drinks has been steadily growing in extent and power. This tendency is quite as evident amongst the members of the medical profession as it is outside of it, and it is by no means confined to the English-speaking nations. The medical papers of Germany, France, and all the other nations of the continent have been much taken up of recent years with the alcohol question. It is not to be wondered at that a subject so many-sided, and with such vital relations to the welfare of nations, is frequently discussed, even in scientific societies, with an absence of that Olympian calm which is characteristic of the man of science. In the following paper I wish to adhere as closely as possible to the scientific side of the question, to give a *résumé* of some recent work on the action of alcohol, and to estimate the effect of this work on our use of alcohol in certain classes of disease. While many experiments and observations seem at direct variance with one another, some important points are apparently fairly well settled; on these I wish to lay stress.

I. Let us consider alcohol as a stimulant, an agent for increasing the functional activity of certain organs or systems. SCHMIEDEBERG, of Strassburg, holds strongly that alcohol acts on the nervous system as a paralysing agent, and not in any true sense as a stimulant. He places it in the class of nerve and muscle poisons of the fatty series, in the special group containing such hypnotics as paraldehyde, chloral hydrate, sulphonal; and anaesthetics, such as chloroform or ether. They have, in common, a marked effect in lowering the functional activity of the central nervous system—brain, cord, and medulla. Reflex excitability is also lowered or done away with, this being an essential distinction from the morphine group. While we speak, in a general way, of the strengthening, stimulating, and animating effect of alcohol, SCHMIEDEBERG and others show it is very difficult to prove this on any definite organ of the body. In the mental sphere, the finger degrees of attention, judgment, and reflection are lost first; hence Dutch courage and the self-confidence of the after-dinner speaker. Great numbers of experiments as to reaction-time have been made by KRAEPPELIN and others, with the result that mental processes are shown to be slowed by even moderate doses of alcohol, while the person experimented on believes he has been working much more quickly. Thus AGE, working under the direction of KRAEPPELIN, has studied "the influence of alcohol upon perception, the person under experiment being required to read through a small slit a continuous

series of meaningless syllables and monosyllabic and dissyllabic words, which were written on a revolving drum. The administration of 30 c. c. (about 1 oz.) of alcohol greatly reduced the perception." In the paper from which I have taken this, an account is given of some much more elaborate mental experiments, all pointing in the same direction. No doubt within certain limits, the brain may become used to the presence of alcohol, so that such derangement of function is less apparent, and individuals vary very greatly in their susceptibility. But many men, accustomed to the moderate use of alcohol at night, find that even a glass of beer in the middle of the day unfits them for doing their best mental work. WELSH has called attention to the recent work done on vascular arrangements in the substance of the nerve cell. He says: "It is apparent that, to meet the extraordinary demands of the most highly functioning of the animal cells, an elaborate arrangement of lymph canaliculi and blood-vessels is provided. As nutriment is by this means diffused through the cell protoplasm, so also are deleterious and noxious substances."

It is probably through the nervous system that the paralysing effect of small dietetic doses of alcohol is exerted on muscle. Laboratory experiments in proof of this are tolerably easy to carry out, and the conclusions of different observers (DELADRIER, KRAEPPELIN, FREY, DESTREE), though differing in details, are, on the whole, much alike. The dynamometer is sometimes used, but more satisfactory is MOSSO's ergograph. In this apparatus "a special arrangement prevents the action of any other muscle than those which bend the middle finger of the hand. By means of a small cord passed around a pulley, the finger raises vertically a weight; to the cord is attached a needle, which records on a dial the height to which the weight has been raised." A weight of, say, 4 or 5 kilos is raised perhaps every two seconds for a given time. After taking alcohol, even in doses of one-sixth to two-thirds of an ounce (90 per cent.), there is a favourable effect for about fifteen minutes; the paralysing effect then sets in, so that the total work-product obtained with the use of alcohol is less than that obtained without it. One example may be given from DESTREE's paper: without alcohol, the product is 22,330 kgrm.-metres; with alcohol, 15,935. LOAS, 6,395 kgrm.-metres. The same result, in a much more impressive form, was recorded by PARKES, from his observations on the marching of soldiers in the Ashanti War.

The stimulating action of alcohol on the heart is popularly supposed to require no proof. But exact observation will not admit such action. SCHMIEDEBERG denies that there is even quickening of the pulse, apart from the stimulating circumstances in which alcoholic drinks are usually taken. Measurements with the sphygmograph by VON DER MEHL and JAQUET on eight young, healthy, or convalescent men showed that amounts of 50 to 100 c. c., diluted to a 20 per cent. mixture, had practically no effect on the heart or circulation. H. C. WOOD, experimenting on animals whose heart was failing from advanced chloroform anaesthesia, found that in no case did alcohol, whether in small

*Reproduced from the *Edinburgh Medical Journal* by request.

A large dose, produce any increase in size of pulse or arterial pressure; on several occasions the larger amounts of alcohol appeared to greatly increase the rapidity of the fall of arterial pressure. As to the influence of alcohol in cardiac weakness, SCHMIEDBERG says it might be advantageous in removing a vascular spasm, and thus making the circulation easier, or a too marked tonus in the cardiac inhibitory nerves might be lowered, or a condition of irritability in the cardiac motor ganglia might be soothed. But a direct stimulation of the heart muscle by alcohol is not yet demonstrated by experiment.

BINZ claims that alcohol is a stimulant to the respiratory centre. In two papers published in 1899, he gives an account of experiments by himself and his assistants, which showed that the volume of air passing through the lungs when alcohol had been taken was increased through a greater depth of respiration, or in some cases where the breathing was shallower, through a quicker rate. This effect was often seen, even when sleep had been produced through the wine. A wine of rich bouquet had a more marked effect than alcohol combined with water, sugar, and lemon-juice. The experiments did not show any regular relation between the amount of alcohol taken and the effect on respiration. In some cases there was a fall instead of a rise of the respiratory curve. BINZ does not say how the stimulus is exerted on the centre, but he indicates that further investigations are needed to show whether or not there is some paralysis of physiological inhibition. The amount of oxygen absorbed and of carbonic acid exhaled in those experiments is not stated; but others (by ZUNTZ, GEPPERT, etc.) seem to indicate that there is no constant difference in the amounts of these gases when alcohol is taken. Hæmoglobin forms a close union with alcohol, and blood with alcohol in it does not part with its oxygen readily. Perhaps this may account for the necessity for increased respiratory effort—a necessity which is noted by BINZ to be much greater in tired than rested individuals. The lowering of body temperature by alcohol has also been suggested as an explanation. It is clear that various points have to be settled before we can accept the stimulation of the exquisitely sensitive respiratory centre by alcohol as more than compensatory for other effects, possibly deleterious.

II. As to the effect of alcohol on the tissues of the body, there is a striking want of harmony even amongst scientific observers on many points. Whether alcohol is a food or a poison is still a matter of hot debate, as it was twenty or thirty years ago. It is generally admitted that alcohol in quantities up to 2 or 2½ oz. is for the most part oxidised in the body of a strong, well-developed man in the twenty-four hours; at all events, only from 2 to 5 per cent. of the amount taken can be recovered from the excretions. Oxidation of alcohol into carbonic acid and water implies the transformation of so much potential into so much kinetic energy, which may be employed to produce heat, or internal work, or external voluntary work. ARWATER's experiments, the most elaborate hitherto devised, appear to demonstrate this view afresh. The general opinion is that alcohol in moderate doses thus

saves the body fat, and that it does not save the proteids, in some cases even causes an increase of proteid metabolism. This question is very far from being finally settled; results vary evidently with unknown conditions. The important point seems to be to find out what the alcohol is about in the body before its final oxydation, or during this process. This change must occur, like all metabolic changes, in the protoplasm of the various cells, in the tissues, not in the blood. Physiology throws little light on the point: "the whole story of proteid metabolism consists at present mostly of guesses and of gaps" (FOSTER). SCHAFER says: "It cannot be doubted that any small production of energy resulting from the oxydation of alcohol is more than counterbalanced by its deleterious influences as a drug upon the tissue elements, and especially upon those of the nervous system." Morbid anatomy provides us with a superabundance of evidence of these deleterious influences in chronic alcoholism, and between this condition and the merely functional impairment produced by single moderate doses of alcohol, there must be every conceivable gradation. Functional derangement implies a molecular abnormality in the protoplasm, which cannot be demonstrated to the eye, and which can be repaired if the necessary conditions are present; in the absence of these conditions, it may easily pass into organic alteration. The distinction is convenient, but not, strictly speaking, scientific.

The poisoning of the tissues is shown in another way, by the impaired resistance to infectious attack. We are constantly seeing evidence of this in practice. Pneumonia and phthisis, for example, have been indubitably proved to occur more frequently, and to be of more serious significance in drinkers than in persons whose blood is practically free from alcohol. Surgeons provide similar testimony in regard to the capacity for healing quickly and soundly. Various recent sets of experiments on animals confirm clinical experience. The most complete and most important are those of LAITINEN, of the University of Helsingfors. Professor C. FRANKEL, of Halle, according to whose suggestion and scheme the experiments were carried out, gives a brief account of them, with examples and comments; but I may be allowed to quote the abstract given in a recent number of the *British Medical Journal*. There were used "no fewer than 342 animals—dogs, rabbits, guinea-pigs, fowls, and pigeons. As infecting agents, cultivations of the anthrax, tubercle, and diphtheria bacilli were employed. These were chosen as types of acute infection, chronic infection, and a pure intoxication. The alcohol employed was, as a rule, a 25 per cent. solution of ethylic alcohol in water. In greater strength, the alimentary mucous membrane of birds became inflamed. Some of the dogs had 50 per cent. solutions. It was given either by esophageal catheter or by dropping it into the mouth from a pipette. The dose varied with the animal, and with its weight, from 1½ c.c. in the case of the pigeon to 60 c.c. in that of some of the dogs. It was administered in several ways and for varying times; sometimes in single large doses, at others in gradually increasing doses for months at a time, in order to produce here an acute and there a chronic poisoning. . . . Dr. LAITINEN found that in all these

cases, without exception, the effect of the administration of alcohol in any form whatever was to render the animal distinctly, sometimes markedly, more susceptible to infection than were the controls."

One remarkable fact which came out clearly in those experiments was the varying susceptibility in regard to the intoxicating effect of alcohol among animals of the same species, size, weight, age, sex, and condition of nourishment; nevertheless the diminution in natural resisting power to the infection seems to have been independent of this variability. FRANKEL holds that even when necessary allowances for differences are made, one is bound to draw the conclusion that the employment of alcohol in the treatment of infectious diseases in man is not by any means to be lightly resorted to. And although the doses are large, they can be paralleled in medical practice, one instance being quoted where the patient, suffering from anthrax of the nose, got daily two whole bottles of red wine, champagne, and cognac, and was thus saved. This, he says, is surely using Beelzebub to cast out Satan. Whether alcohol lowers the power of resistance through interfering with leucocytosis, as WOODHEAD maintains, or diminishing the alkalinity of the blood, or in some other way, is not yet settled.

From the foregoing, these conclusions seem justified. The stimulant effect of alcohol on brain, heart, or muscle, if existing at all, is very brief, lasting probably only a few minutes. Its apparent effect in stimulating respiration needs further investigation as to its mode of causation. On the tissues, alcohol acts as a protoplasmic poison, and this must be borne in mind if we use alcohol for its nutritive value.

Clinical observation has been, on the whole, moving along parallel lines with the researches in the laboratory, the marked tendency in recent years being to restrict the administration of alcohol as a medicine. The influence of authority and tradition, even when supported by "clinical experience," must inevitably be diminished through counter-results obtained by purely scientific methods. However stoutly clinical observers may appeal to the results of treatment, we are all too painfully conscious that the history of medicine consists largely of the substitution of one set of erroneous deductions for another, and we gladly welcome the aid of the pharmacologist who is giving us a basis for more reliable observations.

As regards the whole class of diseases of the *nervous system*, there are few, I suppose, who would expect any benefit from alcohol except of a sedative or narcotic character.

Alcohol will give a temporary relief in worried states, in hypochondriasis, in neurasthenia, in neuralgia of women, in dysmenorrhoea; but the cautious physician must hesitate long before taking the responsibility of prescribing it. In insomnia, the narcotic effect of alcohol is sometimes very marked, both in young children and adults, and it may be given disguised with a bitter or bromide. As YEO says, "if we could be sure that there was no danger of producing the habit of alcoholic indulgence, we might

find in it one of the least objectionable of narcotics. But except in large quantities it has little influence over obstinate cases." The great mixed mass of mental diseases, as found in asylums, are best treated without alcohol, whatever the cause or nature of the case. Men like FOREL, of Zurich, have entirely banished alcohol from the asylums they control. FOREL says the distinction between use and abuse of alcohol, difficult as it frequently is with ordinary men, is quite obliterated with the mentally unsound. Every use is misuse. Alcohol, he thinks, while directly responsible for a large proportion of insanity, injures many more through its effect on the germ plasma. According to him, syrups, juices of fruits, lemonade, tea, and, above all, good water, should be substituted in all asylums and institutions for the treatment of nervous disorders.

I have not much to say about *alimentary* diseases. In some cases of simple dyspepsia a little alcohol with a meal, well diluted, is found to give relief, often no doubt through its sedative action on the nerves, or it may be through increasing the secretion of gastric juice, and thus aiding digestion. There are excellent substitutes for it, and I do not wish to improve on my own practice of treating the case without this aid. I am perfectly satisfied with my results. Other gastric conditions—catarrhs, ulcers, and so forth, also all intestinal disorders—are, I think, better treated without alcohol. Still, it is likely the relief given in colic and some cases of diarrhoea by the home use of brandy will favour its continuance. I need not say that liver disorders are probably in all cases prejudicially influenced by alcoholic beverages.

In *kidney diseases* of all kinds alcohol should be rigidly withheld. We ought to protest against the popular use of gin as a diuretic. GLASER, working under VON JAKSCH, made 106 observations on fifteen individuals, and found that alcoholic drinks in relatively moderate quantities showed their irritating effect on the kidneys by the presence of leucocytes and casts, and uncommonly large numbers of crystals of oxalate of lime and uric acid, these latter being no doubt due to the prejudicial influence of the drug on metabolism. The effect of a single excess was not discernible after thirty-six hours, but continued use of drink was cumulative.

In no class of diseases is alcohol more generally considered indispensable than in septic cases, puerperal, perhaps, above all. A. MARTIN, of Berlin, the distinguished gynaecologist, is (or was eleven years ago) a strong advocate of this treatment, pushing the drink till diarrhoea sets in. One of his patients in the course of six weeks got seventeen bottles of cognac, thirteen of burgundy, thirty-seven half-bottles of champagne, four and a-half of other strong wines, and six of porter, and she recovered. The virtue of alcohol consists, he holds, in its strengthening the action of the heart, and raising the resisting power of the individual to the attacks of the infection. The best comment I can make on this is to ask for proof in face of the experiments alluded to earlier in this paper. It must be borne in mind that all the other resources of modern medicine, including as concentrated and nutritious a dietary as possible, were employed.

Pneumonia may be taken as the most convenient example of acute infectious disorders. We all see many cases of acute croupous pneumonia, and its treatment has for long reflected the prevailing views of the physicians of the time. Many living men recall the huge doses of 12, 18, and even 36 oz. of brandy in the twenty-four hours, which were considered necessary in many cases, and it is quite possible that the results, as shown by statistics, might not look very bad. Statistics are really of small value in helping us to a conclusion. The mortality in different localities differs quite independently of treatment, from the class of patient, habits of living, vitality, and so forth. Even from the same records it is probable that no two men would deduce the same inferences. Moreover, as AUFRICHT puts it, "in one and the same town, in one and the same hospital or medical district, among people who, on the whole, have experienced no change whatever in their social environment throughout a series of years, with a treatment of pneumonia by one and the same physician, with exactly the same methods, the mortality within this series of years may be astonishingly varied." Nevertheless, we must look to clinical records for a control test of the value of scientific laboratory work.

Alcohol is recommended in croupous pneumonia as a food or as a stimulant. LAUDER BRUNTON, who is extremely restricted in his advocacy of alcohol, says, in his "Materia Medica," it "seems useful in acute disease running a limited course, where we wish to sustain the patient's strength until the crisis is past, as well as to prevent its sinking from debility afterwards." Further, he says, "useful indications may be obtained by the practitioner remaining beside the patient, counting the pulse, and watching the tongue, respiration, skin, and general condition for a quarter of an hour after the dose has been given." Now I submit that the evidence thus got is not sufficient to demonstrate improvement; on the contrary, it is likely to mislead, for the brief stimulating effect of alcohol, such as it is, is to be measured by about fifteen minutes, after which comes a prolonged period of depression. From this it is very difficult to make a favourable change by repeating the alcohol. The weighing of the depression produced by the first dose against the stimulation produced by the second would be a nearly impossible task, which would become greater and greater as doses succeeded one another. There are, so far as I know, no exact and complete observations on the oxydation of alcohol in a febrile state of body. It is generally believed that much more can then be borne without damage to the nervous system. Certainly the ordinary signs of alcoholic intoxication do not appear so soon; whether that is not in large measure due to the position of the patient, the already existing numbing of his senses, and the delirium which may be already present, I cannot say. It is certain that even a case of acute pneumonia may be made very obviously drunk, and a most dangerous poisoning every one would admit this to be. It is by no means improbable that many lives have been lost through the tendency to pour in the stimulant when things seemed to be going from bad to worse.

As to the food value of alcohol in pneumonia, I think this need hardly be taken into account. At the best it is

in all probability very small; pneumonics usually take true foods admirably; they do not die of starvation; they generally pass the crisis with an excellent reserve of energy, which usually is shown by their eager desire to be up within a week. Once more listen to SCHAFER: "Any small production of energy resulting from the oxydation of alcohol is more than counterbalanced by its deleterious influences as a drug."

I have never seen pneumonia treated by the routine administration of stimulants, though I believe some practitioners still favour this method; nor have I seen enormous doses of 12 and 18 oz. of brandy given in the twenty-four hours in exceptional cases; but as house-physician or physician I have in earlier days often given, or seen given, 6 or 8 oz. in divided doses. I cannot say I ever saw benefit from these quantities; I believe I have seen harm in a few cases, but this I put down as an impression to which none but myself may attach importance. In more recent years, when my practice has been to give little or no alcohol in most cases, but rather to seek for more reliable substitutes, I feel better satisfied with the results. If grave doubts have been thrown on the beneficial action of any drug, still more if there is strong reason to believe it may be deleterious, it is a safe rule in medicine to withhold it. A few years ago a German doctor was tried for malpraxis for treating a case of pneumonia without alcohol. The judge obtained an authoritative opinion from experts, who said, in the present state of scientific opinion, the discretion of the practitioner must be the only guide. A curious parallel this to a prosecution at Coblenz in 1844, when a Dr. KIRCHGASSER was tried for treating a pneumonic without venesection!

AUFRICHT, of Magdeburg, in his recently published volume on Pneumonia in NOTHNAGEL'S series, declares himself a decided opponent of the giving of alcohol in any routine way. The majority of his cases, especially in private practice, require and get no stimulant, but to decrepit persons coming into hospital, run down through various kinds of privations, he gives some pure alcohol with orange extract, syrup and water (about the equivalent of 2 drms. of whisky) every two hours. As a *pro re nata* stimulant in collapse, champagne is best; but he also recommends very strongly camphor in subcutaneous injections (6 to 12 grs. in 24 to 48 minims olive oil). Further, in the course of the disease, indications for stimulants not present at first may crop up, such as pallor, rapid wasting, marked lassitude, slight indifference to surroundings, with no great amount of fever. He is not going to throw out the child with the dirty water.

STURSBURG has lately reported on the method of treating pneumonia which is in vogue at Bonn (F. SCHOLTZ'S clinic). Nothing in the Bonn statistics, he says, is in favour of alcohol, though it is given in special cases, as when there is a suspicion of inebriety, or if the patient is accustomed to a beverage, or if the general state makes one think *a priori* that a stimulating treatment is advisable. Camphor (1½ gr. to 3 or more) is recommended as the best anæsthetic, if the pulse is weak with low tension, or there is cyanosis, or great loss of strength. After it come strong coffee, grog, strong wine or cognac in

moderate quantity, not, however, to be preferred to camphor.

KASSOWITZ, of Vienna, argues, in a long paper, that alcohol possesses toxic properties alone, that no substance can play the double rôle of foodstuff and poison, and that camphor is far to be preferred to it as a stimulant on account of its promptitude of action and its freedom from undesirable complicating effects (intoxication and stupor). Pneumonias especially do well without alcohol. He believes strongly in giving sugar as a real food. It economises albumin and fat, and has been proved by the ergograph to act powerfully and rapidly in stimulating muscle—an effect which no doubt also benefits the heart. Sugar can be given in various forms, as fruit juices, compot, fruit-ice, sweet lemonade, sweetened tea. He does not understand why alcohol should be used with such enthusiasm as a cardiac stimulant, when we have a thousand times seen what a deleterious effect it has on cardiac muscle.

BARR, of Liverpool, says the feverish blood in pneumonia is sufficient stimulus for the heart, without alcohol, which may be reserved for convalescence. Alcohol does not increase the power of the heart, but reduces the blood pressure, already too low. In certain cases, as when the pulse is irregular and small, and the vessel walls rather rigid, a small amount may do good. If alcoholic subjects are thought to need something, a good light draught beer or stout containing about 4 per cent. alcohol is safest.

This question of the treatment of alcoholic subjects requires some special consideration. The complication of pneumonia with inebriety is very grave, and it has been a widely accepted dictum that alcohol must be given in such cases. There is no doubt if a man is habituated to the use of alcohol, he can take it without the evidence of functional disturbance produced in the non-alcoholic; the tissues tolerate its presence, as they may get used to arsenic, morphine, etc. On the other hand, there is a fear that the sudden and complete withdrawal of the stimulant might be followed by a dangerous depression or even by delirium tremens. The analogy with the stoppage of morphine in morphinomaniacs does not hold, for it is the generally accepted practice that it is best to stop the drug somewhat gradually in these latter, whereas it has been proved best in delirium tremens or habitual alcoholism to stop the alcohol at once and completely.

AUFRECHT has extremely favourable results from his practice of stopping the alcohol entirely in delirium tremens, whether occurring with pneumonia or otherwise. My opinion is that it is bad practice to push the stimulant simply because the patient has been a heavy drinker, but in such cases one must be most anxious to support the strength by beef-juice, beef-tea, and milk, to stimulate with strong tea and coffee, to procure sleep and rest, and to bring in drugs such as camphor, strychnine, caffeine, carbonate of ammonia, and digitalis as they seem called for.

I should much like to discuss the employment of alcohol in some other classes of disease, such as wasting diseases (tuberculosis, diabetes), heart diseases, diseases of children,

but I must at present forbear. My conclusion is that we should clear our minds of prejudices regarding the stimulating and sustaining virtues of alcohol, and substitute for them more accurate ideas. When we prescribe alcohol, let us endeavour, in the light of the most recent scientific knowledge, to exercise at least as much thoughtful care in regard to our patients' welfare, as when we order any other powerful drug, such as arsenic, morphine, or strychnine.

LOCOMOTOR ATAXIA: A REVIEW OF SOME OF THE RECENT LITERATURE.*

By H. R. NILES, M.D.,

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IN the following review of locomotor ataxia I have dealt briefly with those features of the disease with which we are all familiar, devoting most of my time to elucidating less well-known points and bringing to your attention some of the results of recent research which have perhaps passed some unobserved. Owing to my endeavor to keep the paper within a reasonable time limit, I have no doubt omitted many important facts, for in attempting to review the literature on locomotor ataxia I was early overwhelmed with confusion. Investigators in this field have been numerous, and each has interpreted many of the manifestations of the disease according to his own theories and his more or less limited experience. Conclusions reached vary widely.

The adoption of the neuron as the unit of the nervous system has changed former conceptions of locomotor ataxia very materially. But a short time ago "posterior spinal sclerosis" was supposed to be an accurate description of the pathological process. It was believed that the primary change occurred in the interstitial elements of the posterior columns, and by a hardening process or sclerosis so encroached upon the parenchyma or nerve cell as to destroy its function. The reverse of this process is practically established. The sensory neuron degenerates, as a result of some subtle influence which will be considered later; the parenchyma of the posterior columns dies, the function is lost, and the sclerosis is entirely a secondary process and is to be looked upon as the result of an effort on the part of nature to refill the vacancy left by the degenerated neurons. The sensory neuron with which we are more especially concerned consists of a nerve cell situated in the posterior spinal ganglion and two primary processes extending in opposite directions—one terminating higher up in the cord, the other sending filaments to the skin and muscle. One of the chief functions of the nerve cell situated centrally is to maintain the nutrition of the entire neuron. The muscle terminal is the so-called muscle spindle—a sensory organ now known to figure prominently in the muscle-sense, which includes appreciation of position, weight, etc.

It will be recalled that disturbances of the muscle-sense constitute some of the more important symptoms of tabes. In the pathology of locomotor ataxia there is a constant degeneration of the lower sensory neuron, usually beginning at one or both ends, but sometimes involving

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the entire sensory tract. When the disease first affects the upper portion of the sensory tract, we get optic atrophy and paralysis of the ocular muscles, while, when the peripheral end is first affected, we find paresthesias and muscular inco-ordination. In some cases we see the entire symptom-complex develop almost simultaneously, indicating an involvement and degeneration of the entire neuron. Malnutrition from one or more of several sources is the cause of the degeneration. In the recent studies of the physiology of all neurons, three factors—toxæmia, exhaustion, and traumatism—have been found to be largely responsible for interference with nutrition and resulting degeneration. To this, of course, must be added heredity or predisposing causes. Owing to the peculiar arrangement of the capillaries and of the lymphatics in the vicinity of the posterior spinal ganglia, the blood is held longer in contact with the nerve elements of these ganglia. This has been advanced as an explanation of the selective action of these tissues in so many poisoned blood states. There is an accumulation of poison at these points, consequently the neuron whose nutritive centre is situated there is first to suffer ill-effects. The natural point for the beginning waste of this highly specialized nerve unit is at its two extremities so far removed from the centre of nutrition. This, too, affords a plausible explanation for the simultaneous appearance of widely separated symptoms, such as the ataxic gait, the lost knee-jerk, and the anaesthesia on the one hand, and the optic atrophy and ocular palsies on the other.

The pathology of tabes is as yet but an incomplete chapter in the history of the disease. Enough has been proven, however, to demonstrate that it is not a primary sclerosis of the posterior columns. According to the newer teaching, it is a parenchymatous degeneration with secondary sclerosis. The area of the cord most affected is the lumbar enlargement and lower dorsal region; and the tracts which exhibit the greatest damage are the columns of GOLL and BURDACH, while, as the disease advances, changes are noticed higher up in CLARK's vesicular tract; and GOWEN's sensory tract is not infrequently involved. Less constantly the direct cerebellar tract shows similar degenerative changes. Structures outside of the cord that have been found diseased are the sensory end organs, the posterior spinal nerve roots, and many of the cranial nerves like the optic, oculomotor, abducens, auditory, and parts of the cerebral cortex. I have already mentioned the toxic origin of the disease, and the peculiar arrangement of the blood-supply and lymphatics as a cause for its selective action. Other investigators suggest that a thickening of the pia mater, so often one of the later developments of syphilitic infection, by compression of the posterior root fibres at the point of lesser resistance, leads to their degeneration. Further discussion of this subject, although interesting, would prove unprofitable, as none of the theories has been satisfactorily proven.

In turning to the etiology, we find that men suffer from the disease much more frequently than women, the proportion being something like ten to one. It is practically a disease of middle age, fully half of the cases developing between thirty and forty. In very rare instances it has been met with as early as ten and as late

as sixty. A wide disparity of view exists as to the influence of syphilis in the causation of the disease, equally competent observers placing the percentage from twenty to ninety. That other toxæmic states, as well as exposure to wet and cold, traumatism, and occupations or habits which from their nature place unusual demands upon the posterior spinal nerve ganglia, play an important part—indeed may cause the disease, without syphilitic infection—is quite generally believed. In this connection the experiments reported at the recent German Medical Congress are of interest. EDINGER read a paper on "Degeneration of the Posterior Columnus" which had been experimentally produced in rats previously made anæmic and then compelled to overwork in a treadmill. The rats were killed, and upon examination of the cords degenerations of the posterior columns were found. EDINGER thinks that from this experiment the etiology of tabes is made clear, believing it to be a degeneration of the sensory nerve fibres from over-exertion when the ordinary powers of resistance have been lowered, whether by anæmia, toxic conditions, or syphilis. He considers this important in connection with prophylaxis, believing that syphilitics, those anæmic, or run down, should be advised against the great danger of excessive exertion and exposure. Tabes may appear within a year following luetic infection, but in the vast majority of cases manifests itself from five to twenty years after the infection. From this we may conclude that the lesion is not, in the ordinary acceptance of the term, a syphilitic lesion, but by the impairment of the vessel walls, thickening of the meninges, and blood impoverishment, rather predisposes the system to the evil effects of the other etiological factors mentioned above; or, on the other hand, one of neuropathic heredity, with a nervous system, which under the most favorable circumstances offers but little resistance to irritating influences, may rapidly develop locomotor ataxia from syphilitic infection alone.

Dr. COLLINS says: "No one to-day believes that tabes is pathologically a syphilitic disease. Still, nearly every one believes that if syphilis were swept from the face of the earth, locomotor ataxia would not occur. Between the period of the existence of the syphilitic virus *per se* and the development of the morbid processes constituting the anatomical basis of tabes dorsalis there develops a poison, or something due to the former and provocative of the latter. What this intermediary peccant substance is we can only conjecture."

Thorough treatment of the syphilitic infection at the time of its occurrence militates against, and is thought to prevent, the development of locomotor ataxia; but the experience of many has been that the disease is as apt to develop in patients who have been vigorously treated for a long time as in those who have had no systematic anti-syphilitic medication. Railroad employes, soldiers, sailors, policemen, lumbermen, drivers, and others whose work combines exposure to wet and cold with severe physical employment, are frequently subjects of tabes. Excesses in athletic sports, and anything which exhausts the sensory neurons and maintains the exhaustion, are considered predisposing causes, and where a person has been rendered liable to tabes by syphilis, as exciting

causes. Cases in women have been reported where the only discoverable cause was working excessively with sewing machines.

For a victim of locomotor ataxia to first consult a physician on account of inco-ordination is unusual. As a rule, other symptoms cause the patient to seek the advice of a physician. Among the earliest are the lancinating and other pains. Frequently these will be the only symptoms complained of for months, and unless careful tests of the reflexes, co-ordination, and the pupillary conditions are made, failure to make a correct diagnosis will occur, and the patient will be deprived of the advantages of early treatment. Not infrequently the pains do not conform to the classical type of the severe, sharp, or stabbing intermittent pains in the legs. They may occur in some other locality and have the character of rheumatism or neuralgia. Some complain merely of an excessively tired feeling, of an uneasy ache in the legs, or epigastric distress. A considerable number of tabetics consult the oculist for some defect of vision, which may be due to atrophy of the optic nerve, ptosis, or ocular muscle palsies. In some the bladder is the first organ to be disordered, and a symptom which misleads many is the gastric crisis. It usually appears early, and the patient is sure to have some digestive disturbance to account for the attack. By presenting the symptomatology in this manner, I wish to impress the fact that the disease begins very insidiously; its early progress is usually slow; and a correct diagnosis will not be reached unless a painstaking examination is made. By applying careful tests we will find accompanying the above-mentioned symptoms, impaired or complete loss of the knee-jerk and the ARGYLL-ROBERTSON pupil—two symptoms which, if found in company with any one of the above-mentioned, make the diagnosis of locomotor ataxia reasonably certain. The ARGYLL-ROBERTSON pupil is one showing a loss of reflex to light, while accommodation to distance is preserved. The pupils are often found abnormally contracted early in the disease, sometimes to a degree which has given origin to the term "pin-point" pupil. The pupils may also be unequal. Ordinarily the ataxia is first noticed by the patient in walking at night or in attempting to follow a narrow path. Walking hitherto an automatic action, owing to the offices of the muscle spindle or muscle terminal of the sensory neuron, has now, owing to its degeneration, become an act requiring a certain degree of attention and the aid of vision. In other words, the muscle-sense or sense of position—sense of motion—is lost, and the patient is unable to appreciate the movements of the lower extremities without depending upon the sense of sight.

Quite early in the development of the ataxic stage the patient will present the ROMBERG symptom, an inability to stand without swaying or falling if the feet are placed close together with the eyes closed. Minor degrees of this symptom can be demonstrated by asking the patient to stand on one foot or to rise on tip-toe. I was interested to learn that the ROMBERG symptom had been demonstrated by Dr. SACHS and others in those patients where optic atrophy had progressed to complete blind-

ness. When they could stand steadily with the eyes open, they were unable to do so with eyes closed. Some degree of stasis of the ocular muscles is found, and more rarely ocular paralysis involving the third, fourth, or sixth cranial nerves. In the early stages there is often diminution of the knee reflexes, which may be unequal on the two sides. In one case seen recently, marked delay of the knee and ocular reflexes was a prominent symptom. Absence of the knee-jerk may exist in healthy persons, although such instances are not common, while abolition of the knee-jerk is exceedingly constant as a symptom of locomotor ataxia. Occasional cases have been noted where the degeneration was confined to the upper neurons, affecting chiefly the eye, in which the knee reflex remained intact. Optic atrophy is a symptom which is found in from ten to thirty-five per cent. of all cases. The progress of the atrophy is usually slow, and remissions may occur. Blindness ensues in from three to five years. One of the first symptoms may be an attack of double vision with or without ptosis. Occurring in the early stages of the disease such attacks are usually abrupt, some disappearing completely within a few days or a week. One author believes that sudden, painless, ocular palsies in an adult are almost pathognomonic of tabes.

Developing at some stage of the disease in the majority of cases are the tabetic crises, which may involve the stomach, intestinal tract, the kidneys, bladder, heart, or other organs or localities. Gastric crises are most common. The patient is suddenly seized with excruciating pain, which is usually accompanied by retching and vomiting. The attack may continue for several days, or may end after a single paroxysm. Cardiac crises resemble attacks of angina pectoris. Crises are usually among the earlier clinical phenomena and may persist for years, though often disappearing with the lancinating pains as the disease advances. Peculiar to the tabetic crises and a distinguishing feature from other affections is the sudden resumption of the normal function. Other and less frequent symptoms are the arthropathies, commonly known as CHARCOT'S joints, which may affect any of the joints of the extremities; ulcerations of the tissues, usually of the feet, which show a tendency to perforate and are exceedingly rebellious to treatment; spontaneous fracture of the long bones, and localized atrophies.

Locomotor ataxia is a slowly progressive disease, each succeeding year usually finding the patient a little more incapacitated. The duration of the disease is from ten years to half a lifetime. Certain cases have terminated fatally within a few years. Unfortunately recoveries do not occur often, but despite this, it should not be forgotten that cases do recover. When the disease is recognized in its incipency and prompt and persistent treatment applied, the prospects for recovery are as good as or better than in other organic diseases of the nervous system; at least, we can expect many years of comparative comfort and a certain degree of usefulness. In a recent article Dr. BROWNE, of Chicago, says: "I am of the opinion that with many a too gloomy prognosis is made. In my experience the arrest of the disease is not infrequent when the treatment is

commenced in the prestatic stage, and considerable improvement is possible even when the second and third stages of the disease have been reached prior to its commencement.

Dr. COLLINS in his recent work takes up the treatment under five heads:—

- "1. Prophylactic treatment.
- "2. The treatment of the morbid process forming its anatomical basis.
- "3. The treatment of the distressing symptoms which the disease causes.
- "4. The treatment which has for its aim the re-education of the extremities.
- "5. The general systemic treatment."

Under the first head he takes up the advisability of antisyphilitic treatment and the treatment of other factors attributed to syphilis. Neurologists differ as to the advisability of giving antisyphilitic treatment. Some hold that treatment is useless, no matter how clear the history of previous infection, providing, of course, that the symptoms of tabes did not develop shortly after the infection when the lesions might be considered truly syphilitic. On the other hand, many who have had large experience teach that every case of tabes giving a specific history should be given a vigorous course of antisyphilitic medication combined with general restorative treatment. Dr. COLLINS says: "It is my own belief that absolutely nothing is to be expected from the administration of mercury, be it by the mouth, inunctions, or hypodermically, in cases of genuine tabes in which no other syphilitic manifestations are present. Moreover, I believe that such treatment often does harm."

In every case of tabes in which there are true syphilitic manifestations, or in cases developing within four or five years after infection, it is of the utmost importance to adopt at once the most vigorous antisyphilitic treatment. By "vigorous" I mean mercury by inunction or hypodermically pushed to the verge of salivation, and the administration of the iodides in heroic doses. Beginning with forty grains three times a day, the dose should be rapidly increased to three or four times that amount. The treatment will be well borne if elimination is facilitated by Turkish or Russian baths, and care taken to put the least possible work upon the digestive organs consistent with good nutrition. A frequent mistake is made by putting the tabetic patient upon this treatment and permitting him to run down in weight. Nutrition cannot be too carefully looked after, and the patient should spend much time in the open air. Under the head of treatment directed against the morbid process, COLLINS states the preference of eminent clinicians for the various remedies, and goes on to say that the only substances which experience has shown to have any effect in delaying the disintegration of the sensory neuron are iodide of potassium in small doses and nitrate of silver. The latter may be given in half-grain doses two hours after meals, and kept up for a period of six or eight weeks. The patient is then put upon iodide of potassium in ten-grain doses given for the same period. If there is no decided benefit from one course of such treatment, it should not be repeated. He says: "I have never seen the slightest benefit result from the administration of ergot. It should never be given. Strychnine and the glycerophosphates are extensively and deservedly used, but not with any view to influencing the anatomical lesion save by improving general nutrition." In regard to the serum therapy so much vaunted by BROWN-SQUARD, he thinks it has not been attended by sufficient success to warrant one in recommending any of these preparations in the treatment of tabes.

In the symptomatic treatment the physician will have abundant opportunity to display his resources. Patients rightly demand relief from the lancinating pains, and this symptom will sometimes be found so obstinate as

to require the use of opium, but this drug and its alkaloids should be used with the greatest caution, else you add another serious malady to the patient's already heavy burden. Frequently the pains can be alleviated by the use of phenacetine, acetanilid, by counter-irritation over the spine, such as by actual cautery, electricity, warm baths, hot sitz baths, hot and cold packs, ice applications, and spinal stretching. Occasionally the pain can be relieved by the prolonged warm bath followed by general faradization and massage of the extremities. The treatment of the crises often demands the temporary use of morphine. Here there is little danger of the formation of the habit, for as soon as the crisis is over there is no further indication for its use. In the gastric crises oxalate of cerium is sometimes of service. During the attack there is marked disturbance of the digestive functions, and this will require suitable remedies. Oftentimes rectal alimentation is necessary. Ice applied over the stomach, spraying the epigastrium with chloride of ethyl, and prolonged faradization of the abdominal wall, have all been found of service. In some instances laryngeal crises require the inhalation of chloroform. The symptoms demanding relief during the crises are so numerous that I will not attempt to outline the treatment for all. The usual remedies are applicable, and above all absolute quiet and rest are indispensable.

With the revolutionary changes in our conception of the pathology of the disease have come corresponding changes in our ideas of treatment. Instead of attempting to promote the absorption of the products of sclerosis, we bend our energies to improving the nutrition of the sensory neuron, thereby preventing sclerosis. By means of rest, nourishment, tonic treatment, electricity, and baths, we foster the vitality of the nervous elements of the posterior column of the cord, and attempt to build up rather than break down. Three remedial measures stand out conspicuously—rest, nutrition, and re-education. Rest should be employed in varying degrees. In rapidly progressing cases from six to ten weeks of absolute rest in bed with daily massage and faradic exercise of the muscles is the only measure that will delay the progress of the disease. In other cases, from two to four hours' rest in bed during the day is all that will be required. Dr. BAOWER recommends for his tabetic business and professional men the use of a couch in their offices, from which they can transact considerable business while in the recumbent posture, thereby giving rest to the spinal cord. Excessive mental work and physical fatigue should be strenuously avoided. Sexual excesses are especially harmful. In whatever exercise is taken the patient should always stop short of fatigue.

The importance of maintaining nutrition by a carefully selected diet cannot be overestimated. In conjunction with this should be used tonic electricity, hydrotherapy, massage, and other measures that will suggest themselves. Iron, quinine, nux vomica, the nitrate of silver, arsenic, the chloride of gold and sodium, and phosphate of zinc are a few of the many remedies recommended that have borne the test of time and have established reputations as tonics and alteratives. Strychnine is absolutely interdicted by some, while others use it in tonic doses, and one author has given the nitrate in doses as great as three-fifths of a grain daily, claiming excellent results. Dr. BAOWER says: "I am very confident that I have seen more than one case positively injured by the use of even ordinary doses of strychnine." It is evidently a remedy of questionable value and should be used with caution. ERS speaks highly of galvanism applied with one pole to the sacrum, the other to the upper dorsal spine. The selection of poles he has found immaterial. Applications should be daily and gradually lengthened from twenty minutes to one hour. Faradism he has often found to be "positively harmful"; others have recommended it. Static electricity is a valuable tonic. Thick

Heavy sparks have afforded great relief from pain, and the sharp muscular contraction caused by the spark improves the neuromuscular tone. In certain cases the persistent use of massage does much good. "It is a comfort and gratification to the patient; it counteracts muscular hypotonia, and overcomes hyperaesthesia." The value of mental suggestion and the importance of maintaining the mental tone by every encouraging method at our command will commend itself to you.

The last, but one of the most important, measures to which I wish to call attention is the re-education system introduced to the profession about ten years ago by FRAENKEL. Since that time it has steadily gained in importance and has been very much elaborated by FRAENKEL and others. To give a comprehensive idea of the methods would require too much time, but the essential features of the plan are to submit the inco-ordinated muscles to graduated and systematic exercise. The exercise is for the purpose of re-educating the sensory paths and to produce memories in the corresponding areas of the brain. It should be in no way, confounded with gymnastic exercises. Dr. COLLINS gives an excellent description of the plan. He says: "The underlying principle is that, if the patient is made to overcome ataxia by the performance of simple movements with purposeful attention, the sensor-motor cortex will become re-educated through daily directing the movements with attention and conscious volition." The movements require skill, not force, and should be executed with the attention closely concentrated. The treatment requires much perseverance and patience, but "the benefit which follows is often most encouraging to the patient and gratifying to the physician." Patients who have become dependent upon crutches or a wheel-chair have been so benefited as to be able to walk unaided. The patient begins by making simple movements performed deliberately, and with all the accuracy that he can command. These can be executed while lying in bed. They should be persisted in until they can be executed easily, accurately, and without effort. Then more complex movements are undertaken. A great number of variations can be devised, oftentimes by the patient himself, thereby giving him healthful mental exercises. The exercises should be practiced for a few minutes several times a day, but never to the point of producing fatigue. Dr. COLLINS summarises the treatment of tabes as follows:—

"1. The determination whether anti-syphilitic treatment shall be undertaken.

"2. The utilization of electricity, hydrotherapy, massage, and counter-irritation.

"3. The education of the ataxic members, the rehabilitation of purposeful movements.

"4. The administration of the iodide of potassium in tonic doses, nitrate of silver, and restoratives.

"5. The relief of individual symptoms, such as pain, crises, dereliction of the function of the bladder, ocular palsies, amaurosis, and trophic disturbances.

"6. The adoption of a plan of treatment and carrying it through. This may be construed as psychical treatment if one so desires. However that may be, no one who has had experience in treating locomotor ataxia will be likely to deny its importance."

A MIRROR OF PRACTICE.

CASE OF OVARIAN CYST: REPEATED TAPPING.*

By J. B. GILLAM, M.B., B.C., CANTAB,
Holt, Norfolk.

In March 1896, Mrs. W., aged 73, consulted me for "swelling of the body and difficulty of breathing," which had been gradually coming on for some eighteen months.

The abdomen was enormously distended, and presented all the signs of fluid. She had no symptoms of liver, kidney, or heart disease. I diagnosed ovarian cyst. For a month she positively refused any operative measure, then her breathing becoming frightfully impeded, she allowed me to tap her. I drew off on this occasion about 20 pints of greenish fluid. I then found that there remained a solid mass of irregular shape in the left flank extending down into the iliac fossa. She was considerably relieved by the operation, and getting up on the second day resumed her daily occupation. Notwithstanding my urgent appeals to her to have a radical operation, she positively declined. After two months I repeated the tapping, and from that time until September 1900 I tapped her at gradually decreasing intervals until the number of operations amounted to 151. The patient never at any time had a bad symptom in connection with the operation, and invariably got up immediately after I left her. Her strength, however, gradually failed, and the solid portion of the tumour greatly increased in size, a number of smaller solid tumours appearing and growing in size during the four years and a-half that she lived. In the end she was carried off by an attack of diarrhoea after a week's confinement to bed. The first 80 tapplings were performed in the middle line midway between the umbilicus and symphysis pubis; the last 71 in the linea semilunaris on the right side, as the solid tumour gradually overlapped the first region. In all about 1,500 pints of fluid were drawn off. For four years the patient was able to move about and perform household duties, and, except for the discomfort caused by the tumour, she did not suffer at all. Unfortunately a *post-mortem* examination was declined by the relatives.

The above case may be of interest from the following points of view:—

1. It shows that in such cases, where operation is refused, paracentesis for relief of tension may have to be performed an almost incredible number of times.

2. That despite the dangers run in such a method of treatment, life may be prolonged in comparative comfort for a considerable period.

Of course it is impossible to use too strong terms in condemnation of the method adopted in the above case under ordinary circumstances. But it is difficult at all times to combat the prejudices of a certain class of patient to anything approaching a serious operation. Moreover, when once relief and comparative comfort had been

* Reproduced from *British Medical Journal*.

acquired by such a simple procedure as tapping, my patient's suggestion in favour of a repetition of the means adopted were more difficult to meet.

I may mention that in the above case there was undoubtedly adhesion between the cyst wall and the abdominal wall at the time of the first tapping. This undoubtedly minimised the risk incurred.

WHOOPIING-COUGH SUCCESSFULLY TREATED BY TINCTURA BLATA ORIENTALIS.

By BENI MADHUB BASU, L.C.M.S.,

House Surgeon, Albert Victor Hospital, Calcutta.

THAT whooping-cough is a troublesome disease characterised by a peculiar convulsive cough, followed by a long-drawn crowing inspiration, is well known. The nature of the disease is still very obscure. It has been regarded as a purely nervous affection, and as due to pressure on the pneumogastric by swollen tracheal or bronchial glands: it has obviously very close similarities with other zymotic diseases. It is spasmodic, and GOODHART suggests that it is only a passive approximation of the cords or a failure to open freely when the sudden inspiration takes place.

Children are very susceptible to the disease, whereas adults are rarely attacked. In treatment a variety of drugs has been used, but without very gratifying results. Recently the Tinctura Blata Orientalis has been used with benefit, and in my hands proved entirely successful in a series of forty consecutive cases. This series could be conveniently divided into three classes:—

I. There is the long-drawn inspiration with a crowing sound; paroxysms coming on about every fifteen minutes: there is a short cough, followed by another and another without intervening inspiration, each successive cough getting less loud and more stifled until there were from fifteen to twenty expulsive efforts in the course of seven to ten seconds: then followed the long-drawn inspiration with loud laryngeal sound: the face becomes congested and even cyanosed, the features swollen, the eyes starting, and the tongue sometimes hanging from the mouth. In the first case I had tried a variety of drugs to check the fit—tincture belladonna; acid hydrocyanic dil; chloral; bromide of potassium; hydro-bromic acid; exalgin; antipyrin, &c.—but with no result: lastly, I used the "Tinctura Blata Orientalis" in minimum doses every two hours: in three or four days the paroxysms had all completely subsided. In a dozen other similar cases I used the drug from the commencement of the attack without resorting to other known remedies, and have had excellent results.

II. Other cases in which, in addition to the ordinary symptoms described, there is bleeding from the nose and mouth with a slight rise of temperature. Here also the Tinctura Blata Orientalis gave good results in a short time.

III. Cases with the usual symptoms, and in addition there is subconjunctival ecchymosis and petechiæ under the skin with slight rise of temperature. Here again the drug worked excellently. During the last year

Dr. BENQUE BEHARY HALDAR and other practitioners have furnished me with reports of many cases treated without a single failure with the tincture blata. Now that this remedy has proved so efficacious in our hands, I would ask that my professional brethren give it a fair trial, and report their experiences through the medium of this journal.

SYMMETRICAL GANGRENE OF FOUR LIMBS.

By T. M. SHAH, L.M.,

Chief Medical Officer, Junagadh State Hospital.

RABHAN JAMAL, female, aged 24 years, was admitted into the hospital on the 13th January last with dry gangrene of the fingers of both hands and the toes of both feet. Four fingers of each hand were dry, shrivelled, dark blue, and both thumbs were unaffected.

Left hand.—About a fortnight previously the tips of all four fingers began simultaneously to die and turn livid: mortification spread upwards and stopped at the first phalangeal joint, that is, the two distal phalanges mortified. At present the skin alone had separated and there was a serous discharge.

Right hand.—This was involved two days later, three fingers dying simultaneously and the index-finger later.

Feet.—All the five toes of each foot were dead and dry; mortification appeared in them about three or four days after the hands, and extended over the anterior half of the metatarsus, where ulceration was present. In all the patient had been ill for a month, and had only had an attack of ordinary seasonal fever for about twelve days, when the first signs of the gangrene showed themselves: general health fairly good, but somewhat weak: pulse perceptible in all the limbs, and no indications of calcification or hardening of the vessels: no marked offensive smell about the affected parts: temperature 100: pulse 124: bowels regular: appetite fair: sleep undisturbed.

Treatment and progress.—Iron, quinine, strychnine and digitalis: affected parts well dressed with carbolic oil. Patient stayed in hospital twenty days, during which time her temperature and pulse became normal, though the latter was easily disturbed on the slightest exertion. The ulceration, however, extended, and on her leaving her condition was—

Right hand.—The two distal phalanges of the fingers separating the joints having been laid open, ulcers on the first phalanx were granulating and the mortified portions drying up and contracting.

Left hand.—Ulceration had separated the distal phalanx of the index-finger, the distal phalanges of the other fingers being on the eve of separating.

Right foot.—The line of ulceration had marked out all the phalanges, and was deepening in the metatarso-phalangeal joint.

Left foot.—Line of ulceration lay posterior to the head of the metatarsal bones. The process of separation had made the least progress in this limb: general health fairly good: bowels regular: appetite good, and sleep undisturbed.

Remarks.—During my thirty years' practice this was the first case of symmetrical gangrene involving all four limbs that I had seen. There was no apparent cause external or internal. The patient affected was a female, young, and in a fairly good state of health.

Indian Medical Record.

24th April 1901.

NEGLECT OF THE ACTUAL CAUTERY IN SURGERY.

IN an address delivered before the Hunterian Society, and published in the columns of the *British Medical Journal* of the 9th March last, Sir WILLIAM M. BANKS, M.D., F.R.C.S., Eng., LL.D., Surgeon, Liverpool Royal Infirmary, dealt in a masterful manner with the regrettable neglect of the actual cautery in modern surgery, giving remarkable instances of its success in his hands in suitable cases. We have pleasure in extracting the essentials, and if Sir WILLIAM BANKS' cases are a proof of the utility of this method, as they undoubtedly are, we are bound to confess, as indicated by the lecturer, that the great present-day hankering of the profession after new ideas, new drugs, new digestives, and new methods of operation, has gradually led to a contempt for many things taught by our forefathers and purchased by them at much self-sacrifice and personal experience, and perhaps in no matter so much as in the undeserved neglect of the actual cautery. The present-day student, thinks Sir WILLIAM BANKS, hears far too much of new wonderful operations, and does not know that they can be applied only in rare cases, and that then their results are not very remarkable as far as saving useful lives is concerned. The really life-saving operations—the valuable part of surgery—are not sufficiently “brilliant” for him. The diseases in which, in the lecturer's opinion, the cautery might be more extensively used are :—

I. Syphilitic Periostitis—the late syphilitic accompanied by osteitis. A remarkable instance of a case of this class is given, which had resisted all the usual remedies, but was immediately relieved and cured, in so far as the pain was concerned, by the actual cautery, and the author found this method eminently successful in several other cases. The cautery should be “thoroughly applied,” for the skin was not so easy to destroy by cautery as one might imagine. The instrument should be at a white heat, and should be pressed many times over the same tracks : there should be no fear of doing too much and killing too much tissue.

II. Joint Diseases.—The modern treatment by rest could be wonderfully aided, notably in knee-joint affection, by the use of the actual cautery. What were these joint diseases? Not the diseases of childhood, such as tuberculous synovitis or the painless swollen globular knee in an infant. “Let us take,” said the lecturer, “an adult with a gouty or rheumatic history, and let us imagine him to have wrenched his knee falling off a bicycle : a synovitis follows : he gets to work too soon : the knee remains painful, hot and swollen, and the patient gets home and is soon confined to bed : there is intense pain, so bad that even a heavy footfall jars the joint and causes agony : if examined, the joint will be found very broad from side to side as the ends of the tibia and

femur are swollen and enlarged, while all the fibrous tissues—periosteum, fasciæ, ligaments and aponeurosis—are thickened and marked.” The idea that this affection took its origin in an inflammatory process, which commenced in the articular cartilages, was now known quite wrong. The cartilaginous lesion was the late sign. There were a great many persons in whom no traumatic synovitis, however badly managed, would degenerate into the above condition. The patient must have the rheumatic or gouty, or rheumatic-gouty, taint in him before the mischief got into this excessively bad condition. In a case such as this, the only treatment was to lash up the joint absolutely rigidly in a THOMAS'S knee splint : if bent, the knee must be straightened under chloroform, and this was then “*par excellence*” the joint to which “firing” would do good. It was in cases of this type that the great SYME used the cautery, and HEATH had constantly employed it in a similar manner and with obvious success. So soon as the diseased knee had got settled down in its splint, the cautery should be applied freely. It might be predicted from that moment that the old weary joint pain would diminish or disappear, and only the pain of the burn would remain. The former was intolerable ; the latter could be borne. The cases instanced by the lecturer are absolutely convincing as to the efficacy of this treatment in the right kind of cases.

III. Acute spinal inflammation after injury.—The same experience held good with regard to the spine that applied to the joints, but in the genuinely tuberculous troubles of the vertebrae the cautery was of no use at all—rest and ever prolonged rest on the back and complete fixation was what should be relied on. In one case given under this head the results of actual cautery are of such a startling, one might almost say miraculous, character that we need offer no apologies for reproducing the facts in detail as narrated by the father of the boy-patient—a doctor and one of the most distinguished University Professors in Great Britain—at the request of Sir WILLIAM BANKS. He says :—

“I send you a rough draft of my boy's case, concocted from such notes as I possess, and from memory of the particulars. I trust it is not too much in the strain of a wonderful cure, but wonderful cure it certainly was, and I shall remain everlastingly indebted to you for the decided manner in which you advocated the treatment practised in such cases by our well-beloved old chief (SYME). What a lot of wholesome lessons he taught us, and how different from the present system of cram! My son, a lad of 14 years of age, while on a visit to South Wales, was bathing one day. He dived from a rock into comparatively shallow water, and struck his head violently against the sandy bottom. He gave his neck a severe wrench and felt somewhat stunned after the accident, but was able to dress himself and to walk a distance of something like a couple of hundred yards to the house in which he was living. A medical man saw him and advised him to lie quiet in bed. For several days after, however, he suffered severe pain in the cervical portion of the spine, aggravated by movement. About three weeks after, he made a journey by sea to get to his home, and although he lay stretched out during the greater part of the journey, yet the movement of the boat, or any exertion necessitating his moving the spine, gave him acute pain. On arriving home, he took to his bed and was attended by myself. About a fortnight after his return I was horrified one morning to find that the patient had lost almost all power of movement in both upper extremities. His grasp was almost nil, and the limbs lay in a listless manner by his side. On careful examination it was found that the muscles

of the arms had become much wasted. Up to the time of the accident the boy had been remarkable for his muscular development. When stripped, his muscles stood out like those of a young Hercules, and he was looked up to by his schoolmates as quite a model in this respect. The muscles were now, however, soft and flabby, and very much reduced in bulk. Under these circumstances, the advice of a second medical man was obtained, who recommended the application of blistering to the part of the spine corresponding to the points of origin of the roots of the brachial plexus, and the administration of potassic iodide and some other remedies. At a later date the blistering was repeated, but without the slightest beneficial effect. The paralysis of the arms was aggravated and the wasting more marked. Almost day by day these symptoms were notably becoming worse, while the lower extremities remained comparatively, if not completely, unaffected. The loss of power in the arms was such that the patient was latterly unable to move the fingers of either hand. Sensation never suffered to the same extent as motion, although it seemed to some extent perverted. The reflexes were not entirely lost in the arms, although much in abeyance. The plantar and knee-jerk reflexes were exaggerated, and ankle clonus was well marked. Seeing that the paralysis had been steadily increasing, and was now almost complete, I came strongly to hold the opinion that the only remedy likely to be of service would be the application of the actual cautery—an opinion in which my medical friend concurred, although considering the remedy somewhat drastic in its severity. For the purpose of reassurance, I wrote to you, and you confirmed the proposed line of treatment in the strongest terms. After the administration of chloroform (end of September 1892), the actual cautery was applied in four places, each cauterised place being the size of a crown piece; two on each side of the spine, where presumably the lesion was situated—namely, over the roots of the brachial plexus. The skin was burnt through completely, and probably also part of the subcutaneous areolar tissue. On recovering from the chloroform, he did not experience the slightest feeling of pain, and, indeed, did not do so during the whole time the wounds were healing, which they did readily under ordinary surgical treatment. During the following week it was noticed that the paralysis made no further progress, and the wasting of the muscles, which had up to that time been steadily progressing, ceased to become any worse. At about the end of a fortnight it was observed that the patient could move the right fingers slightly, and shortly afterwards the same was noticed in the left. From this time onwards the muscles steadily gained in strength, and the power of motion in the extremities returned, until in the spring (April) of 1893 the muscles had gained a fair amount of their previous dimensions, and the power of movement was almost completely restored. The further history of the case is that the paralysis was completely recovered from, the lad has become a medical student, and has now gone through his full course of study. He is capable of any exertion, and in every way has been restored to health."

This account indicates sufficiently the class of cases of this type benefitted by the actual cautery.

IV. Pruritus Ani.—The causes of this affection were known to be diabetes, eczema, irritation mainly due to spirit drinking, and the condition aptly termed "idiopathic—pathology unknown." The first was capable of being removed and often cured by constitutional treatment, but the last cause was the one which was associated with the worst cases and was unfortunately quite inexplicable yet: certain German authorities ascribed them to unknown changes in the central nervous system. The appearances most commonly noticed were: the perineal skin is thrown into fine folds, which are hypertrophied states of the natural tendency to wrinkling around the orifice; the commencement of the perineal raphe shares in this; there is no particular amount of wetness to be seen, but the affected area has the appearance of being made of slightly damp rugose wash leather. Every one

of the lecturer's cases, which had to be treated by the actual cautery, had occurred in persons belonging to the better ranks in life, so that ordinary dirt did not seem to have anything to do with the disease. In regard to treatment, the best was to get the patient to sit for some minutes before getting into bed in very hot water and then to dab the affected parts with as strong a solution of carbolic acid as he could bear: greasy applications never did any good. But there was a certain limited number of cases upon which no drugging or dieting seemed to have the least effect—the "idiopathic" cases—for which treatment by the actual cautery afforded a prospect of cure when everything else had failed. As to the method of using it, the patient should be chloroformed and tucked up in the lithotomy position. Any small skin piles should be clipped away with the scissors. If there were not many rugæ, then the large bulbous-headed cautery, which was usually found in the PAQUELIN'S case, should be used, and the skin for an inch and-a-half all round the anal orifice well frizzled. If there are any rugæ, then the small cautery point should be used, and it should be introduced into the furrows between the rugæ as well as applied over the tops of them. The lecturer then gave striking instances of the misery to which pruritus ani might reduce a man, and the lasting benefit derivable in the proper class of cases from the use of the cautery. The vast majority of cases were curable by finding out and doing away with what produced them. It was only in very severe cases, for which no reasonable cause could be found, that Sir WILLIAM BANKS recommended the cautery. It was about twenty years or more since he had tried the remedy for the first time, and during all the years intervening he had not used it more than a dozen times altogether. But the very value of the remedy lay in its being unfailingly curative in absolutely intractable cases.

SOME COMPLICATIONS OF GONORRHOEA IN THE MALE.

IN a lecture given to the Post-Graduate Class at Charing Cross Hospital not long ago, and published in the columns of the *Practitioner*, Dr. HERBERT F. WATERHOUSE, M.D., Edin., F.R.C.S., Eng., Surgeon to Out-patients, Charing Cross Hospital and Victoria Hospital for Children, dealt in a lucid and concise manner with the commonest complications of gonorrhoea in the male. A gonorrhoeal urethritis is far too frequently considered a more or less trifling affection, and for this very reason we are of opinion that the subject should receive more attention than is ordinarily given to it, and accordingly we call the essentials of Dr. WATERHOUSE'S practical observations for the benefit of our readers. Such complications as retention of urine, follicular and peri-urethral abscess, inflammation of COWPER'S gland, balanitis, phimosis and paraphimosis, bubo and lymphangitis, and gonorrhoeal conjunctivitis are not touched upon. The lecturer first dwelt on the importance of being able to distinguish the gonococcus under the microscope. In gonorrhoeal pus it was always found in the diplococcus form, sometimes four in a set (tetrad form). The most noticeable characteristic of the organism

was the fact that it occurred chiefly in groups within the pus cells. It was to be carefully borne in mind that every coccus, or even every diplococcus, that resembled this micro-organism was not necessarily a gonococcus. The diagnostic point was the grouping of gonococci within the pus cells, and unless this could be shown, no one ought to dare venture to assert the presence of gonococci.

EPIDIDYMITIS.

This was the commonest complication caused by a direct continuity of gonorrhoeal inflammation from the prostatic urethra down the ejaculatory ducts to the vas deferens, and from this into the epididymis. As a rule, one testis alone was affected. There is intense sudden pain, a stoppage or diminution of the urethral discharge, and when the inflammation is developed, oedema and purplish discoloration of the scrotum, and often an effusion of hydrocele fluid, the epididymis being often larger than the testis itself. The point of maximum tenderness is always the lowest part of the globe minor, and when this is pinched, a characteristic and nauseating pain is experienced. There is always swelling of the spermatic cord and much thickening of the vas deferens. Gonorrhoeal epididymitis is by no means infrequent in a testis retained in the inguinal canal, hence in all cases of supposed strangulated hernia in the male, always make certain that the testes are in the scrotum. The prognosis is good. Sterility might result.

Treatment.—Preventive treatment was the most important, and this consisted in treating the gonorrhoea carefully, using frequent and mild injections, abstaining from alcohol and exertion, and wearing a suspensory bandage. For the ordinary painful case, rest in bed was necessary, the bowels being freely opened, elevation of the testicles, smearing with belladonna and glycerine. When the pain was intense, tincture of acetic acid, 3 minims at once and then 1 minim every half hour until the pain ceased or the pulse had begun to be affected, would be found invaluable. Tartar emetic was not so beneficial. If this failed to relieve pain, leeches over the spermatic cord in the inguinal region and the abstraction of half a pint of blood would certainly cause cessation of pain. Subsequently the testis should be strapped every second day, or liniment potassii iodidi c. sapone, or a weak oleo of mercury, might be rubbed in and iodide of potassium in 3 or 4 grain doses administered three times a day. Saline aperients should be given daily.

PROSTATITIS.

Symptoms.—Rise of temperature, heat, throbbing and distension and heaviness in the perineum and rectum, and pain at neck of bladder aggravated by micturition and defecation. The pain at the end of micturition was not nearly so severe as in cystitis. There is enlargement and tenderness of the prostate, and the pain is aggravated by standing or sitting. In ordinary cases the normal condition is reached in six to ten days. If suppuration supervene, the condition becomes formidable with much constitutional disturbance. If an abscess form, it invariably discharges into the urethra and next opens into the rectum. But the pus may make its way in almost any direction and may even cause purulent peritonitis and death: pyæmia may also ensue. Chronic prostatitis might result.

Treatment.—Rest in bed: saline aperients: light milk diet: bicarbonate of soda, bromide of potassium and hyalogen given internally: stop all injections: very hot, rectal injections: leeches to perineum in very acute cases, tartar emetic in doses of gr. $\frac{1}{4}$ every three hours

until a distinct effect is produced on the urine; acetate acts similarly to a less degree: opium is most useful in the form of rectal suppositories: if retention occurs, the catheter should, if possible, be avoided, an opium suppository, and a hot, wet cloth will generally succeed: if pus form, make a median perineal incision and drain abscess. In chronic prostatitis frequent small bladders to perineum is best.

SEMINAL VARIOLITIS.

This is much more common than is generally supposed, being often confounded with prostatitis. The characteristic symptom is the feeling per rectum of a seminal vesicle as a painful fluctuating tumour leading upwards from the base of the prostate to one side of the middle line: nocturnal emissions of blood-stained emissions, if present, is almost pathognomonic: abscess may form and result even in septic peritonitis.

Treatment.—That of prostatitis generally.

CYSTITIS.

Symptoms.—Frequent micturition admitting of no delay, accompanied and followed by very great spasm and pain, especially at the end of the act, with considerable constitutional disturbance: the pus, which is almost always present in the urine, comes chiefly at the end of micturition, the last few drops being markedly milky. The affection may continue a few days or become chronic, and even produce permanent disabling involvement of the vesical wall.

Treatment.—If acute, same as prostatitis with 10 grain doses thrice daily of boric acid, and later sandalwood oil: if chronic, irrigation of the bladder with mild antiseptic solutions, such as a 3 per cent. boric acid.

URETERITIS, PYELITIS AND NEPHRITIS.

Rare and generally unilateral. At first the mucous lining of the ureter and the pelvis of the kidney are alone affected, but hydronephrosis and organic renal changes may ensue. The early symptoms are indefinite—ill-health, pains shooting down course of ureters, pain in urine with epithelial casts and blood: if suppuration set in, the condition is grave, and death may occur from suppression of urine or general sepsis.

SYSTEMIC OR SEPTICÆMIC GONORRHOEAL INFECTION.

Death is generally found in association with suppuration of the urinary tract, and is thus due to a mixed infection of pyogenic cocci and gonococci: gonorrhoeal endocarditis not infrequently occurs.

GONORRHOEAL RHEUMATISM.

One of the most serious complications of gonorrhoea. It chiefly occurs in the form of an arthritis, but may attack the tendon sheaths, the bursae and more rarely the pericardium and endocardium. The larger joints are chiefly affected. It occurs probably in 3 per cent. of all cases of gonorrhoeal urethritis, and is far more frequently found in women than is generally supposed. It is well to bear in mind that the temporo-maxillary joint, so often affected in gonorrhoeal rheumatism, is almost exempt from ordinary rheumatism. In gonorrhoeal arthritis the symptoms are less acute, and tend to become chronic, and the temperature is, as a rule, very rarely high when suppuration has occurred.

Treatment.—Not very effective: salicylates and iodides are, as a rule, useless: a toxic form of treatment, iron in large doses combined with strychnine or quinine, giving the best results. In acute cases fixation of the joint is required: in chronic cases massage with gentle movement. In extremely acute effusions incision of the knee-joint and a wash out with a three per cent. solution of carbolic acid has proved effective: this treatment had also answered well in chronic forms of hydrarthrosis.

COMMENTS AND NEWS.

BOGUS AMERICAN DIPLOMAS— THE TWO ARMSTRONGS CONVICTED.

THE Government have issued the following extracts from American papers, recording the conviction of the two ARMSTRONGS, who conducted a "diploma mill" and sent many of their "diplomas" to India.

The first extract is from the *Sunday Times Herald* of New York, dated December 9th. It states:—

Guilty, as charged in the indictments, was the verdict returned yesterday by a jury in the United States District Court before Judge O. C. KOHLSAAT, in the case of JAMES and THOMAS ARMSTRONG, who were charged with conducting a "diploma mill." The jury was out but a short time when a verdict was reached. The attorneys for the defendants gave notice of a motion for a new trial, which the Judge will hear next Saturday. The bond of JAMES ARMSTRONG was increased from \$2,000 to \$5,000, and THOMAS ARMSTRONG was permitted to go on his present bond, pending the motion for a new trial.

Judge KOHLSAAT will not pass sentence upon the defendants until after the arguments for a re-trial are heard. The maximum sentence for three counts on which the prisoners were indicted is sixteen months' imprisonment and \$1,500 fine. District Attorney S. H. BETHA, who conducted the prosecution, declares that this case brought to light the most flagrant violation of the use of the mills to defraud. He is particularly anxious that JAMES ARMSTRONG, President of the College, shall be punished, as he considers him the head and front of the scheming. He is an old offender, and the State Board of Health has been after him for several years.

THOUSAND DIPLOMAS A YEAR.

The two defendants conducted what was known as the Metropolitan Medical College in the People's Institute on West Van Buren Street. Last June they were arrested, together with JOHN RANDALL, Secretary of the Institution. RANDALL pleaded guilty after being indicted, and will probably be sentenced with the two defendants.

The evidence produced at the trial showed that the "College" was turning out "diplomas" at the rate of about three per day, or more than 1,000 a year; that one-tenth of the student graduates never personally attended the institution, or had any instruction whatever from it. Victims of the fraudulent method practised testified that they have received advertisements stating that the holders of diplomas of the College would be entitled to practise in certain States.

Money was the main consideration for "graduation," and according to the testimony, the price was fixed to suit the convenience and financial prospects of the candidates. It was shown that while in general terms the officials of the institution made representations that they conducted a reputable Medical College, the actual thing they did amounted only to the selling of "diplomas" for cash; that medical knowledge was not at all essential to acquire "diplomas."

PROFESSORS WERE BOGUS TOO.

Lectures were seldom given in this "College" according to the evidence, and when they were, it was mostly by

candidates themselves or "Professors" possessed of ARMSTRONG's degree of M. D. JON DE BARTHE, M.D., LL.D., Professor of Medical Jurisprudence, and a "graduate," testified that his work consisted of "graduating" applicants, which meant selling them diplomas "for whatever sum they were ready to give."

O. T. KOMOROWSKI of Ellis Junction, Wisconsin, "Professor of Surgery," according to the faculty roster, swore that he had purchased his sheepskin for \$75. He testified that later he sold a diploma to a labourer and one to a barber. G. A. LARKEY, an assistant in a sanitarium in Iowa, told the jury that he had been "graduated" from the Metropolitan after a three months' course upon the payment of \$100. When asked as to the practice in dissection, he said: "The Professor brought in a hog's heart once and we examined that."

It was shown that the Armstrong Institution had no use for laboratory, chemical, or anatomical, no clinics, and absolutely no means of particular instruction in demonstrative medicine of any description; that the whole concern was devoted to the selling of "diplomas," and not in fulfilling their advertisement claiming to give a good medical education to students. Blank "diplomas" were sent in dozen lots to various places, including foreign countries, to be sold according to the testimony.

"PRESIDENT," AN OLD OFFENDER.

That JAMES ARMSTRONG, President of the Metropolitan, was an old offender, and anticipated trouble, was brought out by the prosecution, when it was shown that he held nine charters, granted by the Secretary of State, in order to be prepared for any emergency. When ARMSTRONG's charter authorising him to conduct the "Illinois Health University" was declared null and void by the Supreme Court, he began business under a charter granted by the "Independent Medical College." When this was annulled, the "Metropolitan Medical College" was brought into existence. A Bill enjoining him from exercising the rights under that charter is now before the Circuit Court, and temporary injunction is in force.

The second extract is from an issue of the same paper, dated December 16th, as follows:—

Judge KOHLSAAT, in the federal court, overruled a motion for a new trial of the diploma mill cases yesterday, and imposed a sentence of one year in the Du Page County Jail and a fine of \$500 on JAMES ARMSTRONG, President of the Metropolitan Medical College. The defendant was convicted recently for using the mails to defraud in connection with a diploma mill. Sentence against THOMAS ARMSTRONG, who was convicted, and JOHN H. RANDALL, who pleaded guilty to the same offence, will be passed at the next term of Court in March.

The fight between the "diploma mill" officials and the Government authorities has lasted several years, and when sentence had been passed by the Court, Post-office Inspector GUY GOULD, who has accumulated all the evidence, said he was satisfied.

The "graduates" of the ARMSTRONG schools are said to number several thousand, and witnesses testified that most of these had no qualifications as to them to secure diplomas or practice medicine.

EDUCATION IN SANITARY ENGINEERING.

THE Bengal Government have under consideration a proposal to introduce a qualifying test in sanitary science amongst engineers and overseers in the employ of Municipalities and District Boards. The Director of Public Instruction, Bengal, recently submitted a joint-report drawn up by the Principal of the Engineering College at Sibpur, the Sanitary Commissioner and the Sanitary Engineer, on the subject, and the scheme originally contemplated was that instruction, both practical and in the form of a course of lectures, should be given at Sibpur to students of the College in certain specified branches of Sanitary Engineering which are not included in the present course. This scheme did not commend itself to the approval of the Committee, on the ground that the time of the students at the College is already fully occupied. They, therefore, propose to substitute for it an examination in Sanitary Engineering, which should be restricted to those who have passed the first engineering, the Licentiate of Engineering, or the Bachelor of Engineering examination of the Calcutta University, or to those who hold Foreman Mechanics' certificates. The Lieutenant-Governor, however, considers that a mere examination, unaccompanied by a special course of study conducted under proper guidance, is of little practical utility and no criterion of fitness for employment either under Government or local bodies. The only other proposal made by the Committee is that one B. E. student should be attached for a year to the Sanitary Engineer for practical training. This course would, in the opinion of the Lieutenant-Governor, be useful; but to limit it to one man at a time would not meet the requirements of the Province. His Honor accordingly directs that the number should not fall short of three, and that the following scheme shall be adopted at present in regard to their recruitment and training:—

- (1) Government will undertake to give three scholarships a year to qualified candidates who undergo a course of practical training under the Sanitary Engineer.
- (2) These scholarships shall be open to candidates who have passed through the full course at Sibpur and obtained their degree of Bachelor of Engineering.
- (3) The candidates shall be selected by the Principal, Sibpur College, in consultation with the Sanitary Engineer.
- (4) The scholarships shall be of the value of Rs. 30 per mensem tenable for one year, Rs. 25 per mensem being paid during the year, and the remainder at the end of the year's training on a certificate being furnished by the Sanitary Engineer.
- (5) At the conclusion of the course, if their work has been approved, the passed students will receive a certificate from the Sanitary Engineer setting forth the nature of the training they have undergone and the degree of proficiency they have attained.
- (6) District Boards and Municipalities will be recommended to give preference to men who hold these certificates when filling vacancies in their Conservancy and Sanitation Departments.
- (7) Government will pay the cost of instruments and appliances, and also the travelling allowances of the students at intermediate-class rates.
- (8) The course of practical training will be as follows:—

Three months surveying and levelling a small town for a drainage scheme. One month plotting the survey with levels. One month laying down on the survey plan the

boundaries of the numerous drainage areas into which every town is naturally divided. One month learning how to calculate the sizes of main drains and making working drawings. This period will be spent in the Sanitary Engineer's drawing office. Two months working under the orders of the Chairman of some large and important Municipality to learn the details of management of water-works and conservancy, and superintending the construction, cleansing and flushing of drains. Chairmen of Municipalities will be asked to give the students definite charges of say one or two wards, and to report on the efficiency of their work. These reports will be taken into consideration when the Sanitary Engineer frames his final report on the work of each student. Four months are to be spent in working under the Calcutta Corporation. (With the consent of the latter) to learn the details of house connections for drainage and water-supplies, the inspection of house-fittings, the repair of pipe-sewers, and the laying of water-pipes and mains under the Engineer's Department. For a portion of the time, about a month, the students will be placed under the Health Officer to learn the Nuisance Inspector's work and conservancy. While employed in Calcutta they will be required to write daily reports of every kind of work in the performance of which they take a part.

MENSTRUATION AND THE PRO-CESTRUM.

THE *British Medical Journal*, in commenting upon "the sexual season of mammals and the relation of the pro-estrus to menstruation" by W. HSAPE, points out that such contributions would do much towards the ultimate solution of the problem of menstruation. HSAPE had attempted, by a study of the comparative physiology of the sexual season in mammals, to make human menstruation comprehensible. The sexual season consisted of four consecutive periods—the "pro-estrus" with congestion and hypertrophic changes in the internal and external generative organs and a pro-ovulatory discharge from the genitals of mucous and sometimes blood also; the "estrus" the time of desire when fruitful coitus was possible (in some instances occurring in the middle of pregnancy—"abnormal estrus"); the "met-estrus" or subsidence; and the "an-estrus period" or resting time varying from two to eleven months. Some animals have one (wolf) or two or three (bitch) "an-estrus cycles" in a year and are called "mon-estrous" mammals. But some—the mare—are "di-estrous", the pro-estrus followed by estrus, that by met-estrus, and that by a short resting time "di-estrus", and then the cycle over again and then an-estrus (long rest) or even perhaps di-estrus, and the whole cycle once more. In the human subject there was a continuous series of di-estrous cycles—"poly-estrous"—so that she had a sexual season during the whole of her reproductive period (in the absence of gestation). The *Equus* are supposed to have an an-estrus period, menstruating every three months. An interesting matter gone into is the cause or origin of the sexual season: it was probably the result of a stimulus, and that stimulus, it was likely, came from the alimentary canal, at any rate the "flushing" (special feeding) of ewes hastens the advent of the sexual season in them. The most important question discussed was the relation of human menstruation to the cycle of events in the sexual season of other mammals. HSAPE boldly identified it with the pro-estrus. In both menstruation and the pro-estrus there was congestion, in both there was recurrence, and the homology was to be expected from the standpoint of phylogeny. There was a difficulty in the nature of the discharge which was blood in the primates, not even blood stained in most mammals. But this could

be explained away, for there existed all the gradations between a simple menorrhoea with some catamenial pain and blood with some of the stercoraceous stools. In some instances also there was an extravasation of blood into the cavity of the uterus, but either this blood was absorbed in situ or expelled later as a clot. Be the "pro-ovarian" (so-called "heat") of the lower mammals was homologous to the menstruation of the primates. In all his conclusions, HARP makes ovulation play a subsidiary part. This did not coincide with the views of BAIRD and others who looked upon the ovary as the governing power of the breeding function. HARP closes his article with the suggestion of the recurrent presence in the blood of "an-ovulatory toxin."

URINARY EXAMINATION A DUTY.

The *Medical World* says:—Too many physicians are culpably careless with regard to urinary examinations. Some are not trained sufficiently to do the work properly, and thus ignore it except in severe cases, when they are dependent upon some one who makes a specialty of doing such work. Others have the required skill, but are not properly equipped. Others have the equipment and the skill, but are too busy or too lazy to do the work.

Doubtless many a case of severe kidney trouble might have been saved if properly attended in time. One sees occasional cases which have been diagnosed as "BRIGHT'S disease," and doped and drugged unmercifully, live for years, or recover entirely.

These actual conditions are a sad commentary on the honesty of medical men. It is the duty of every medical man to perfect himself in the examination of urine and to practice it conscientiously. Every case with any obscure symptoms, or which does not readily yield to treatment, should have the benefit of a thorough examination of the urine. We could never understand how some medical men, otherwise honest, could look at a bottle of urine, shake it, or perhaps make the litmus paper test, possibly take the specific gravity, and then assure the patient that the kidneys were all right.

There is a responsibility connected with making a diagnosis which some physicians ignore. The patient is trusting you when he applies to you; he is paying you for the best knowledge and skill of which you are capable; his life may be in the balance, and neglect or careless ignorance on your part may condemn him to the grave; and if his illness has not had proper attention at your hands, you may tremble when he dies. It is strange that this important subject is so neglected. A few dollars will equip one with apparatus, and but little space is required for the instruments. Only a few moments are required to make a thorough, and capable examination of the urine in most cases. It is some trouble certainly, but you are getting paid for it.

One reason why practitioners make so few urinary examinations is that they have permitted the patient to understand that "urinary examination" consists in the above-mentioned farcical procedure, and is not to be charged for. They thus avoid making an honest examination, which will entail time, expense, and trouble, which they fear they could not obtain remuneration for. It is always wise to be honest. When you believe the interests of the patient require a urinary examination, tell him so, and explain that the time and skill required necessitate an extra charge for such service. Then if you charge a little for it, you are aided by every rule of law and ethics to make a careful and thorough examination.

We know of one young practitioner who made a path to success by the careful urinary examinations he made. He permitted the patients to watch the manipulations, and thus gained their confidence. When they saw the pains he took with them, they felt they were in good hands, and trusted him and voted for him afterwards. The information he obtained from such examinations gave him insight into "obscure" cases, and his treatment was more successful than that of his predecessors, who had not time to make urinary examinations, or who had the experience (?) which qualified them to dispense with such "formality."

While we are confident that it will pay, we would not urge the business side of the proposition; but we insist that no man can be an honest physician unless he be prepared to make urinary examinations with accuracy, and do it habitually in all cases which might possibly need it. The more honestly a doctor acts, the better physician he becomes. And no man can be either an honest or capable practitioner unless he give due attention to urinary examination.

NEW MEDICAL UNDERGRADUATES AND GRADUATES.

THE undermentioned candidates have passed the Medical Examinations from the Medical College, Calcutta:—

PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

First Division.

Batrai, W. S.; Ghose, Radhakrishnan.

Second Division.

Bharat, Saratkumar; Bhattacharyya, Nanilal; Chatterpadhyay, Raghunath; Daniel, John; Dasgupta, Sarajranjan; Datta, Madanmohan; Dutta, Nalinikanta; De, Binodbihari; Gupta, Jatindranath; Homewell, U.; Maitra, Jatindranath; Majumdar, Binayal; Majumdar, Saurindrakumar; Mitra, Jatindrakumar; Mukhopadhyay, Debendranath; Nag, Nrisinhprasad; Pan, Nanilal; Pramanik, Tejchandra; Ray, Binaybhuan; Ray, R. C.; Ray, Sudhansu Sekhar; Raychaudhury, Upendranath; Sarker, Surewar; Sen, Jyotindranath; Sen, Satischandra; Sen, Syamacharan; Sengupta, Surendranath; Sinha, Durgacharan.

FIRST M.B. EXAMINATION.

Second Division.

Bandopadhyay, Satischandra; Chatterpadhyay, Hariharan; Das, Nibaranachandra; Das, Tarinicharan; Maitra, Jatindranath; Sen, Apurbakumar; Sen, Gananath.

SECOND M.B. EXAMINATION.

Second Division.

Maitra, Dwijendranath; Mitra, Gorbiprasad.

The undermentioned candidates who failed at the Preliminary Scientific M. B. Examination, having attained the standard of the Preliminary Scientific L. M. S. Examination, are declared to have passed that examination:—

PRELIMINARY SCIENTIFIC L.M.S. EXAMINATION.

Bandopadhyay, Phanindranath; Bandopadhyay, Satishkumar; Bhattacharyya, Nalinimohan; Bhattacharyya, Tridevdas; Chakrabarti, Premenkanath; Das, Kanailal; Dasgupta, Bangalal; Gupta, Surendranath; Maitra, Nrisinhchandra; Mitra, Adwinikumar; Mukhopadhyay, Atabihari; Mukhopadhyay, Ramendranath; Pal, Nageshchandra; Pal, Binodbihari; Poddar, Jugalal; S. Montakumar; Sanyal, Gananath; Sarker, Surendranath; Sarker, Montakumar; Sen, Hemendranath; Sen, Paramanath; Sen, Ramnarayan; Sinha, Sukhdev; Sinha, Jatindranath; Syed Ali Hussain.

DEATH OF DR. ELLEN MITCHELL OF THE AMERICAN BAPTIST MISSION.

THE death took place at Moulemein, on Good Friday, of Dr. Ellen Mitchell, of the American Baptist Mission. Dr. Mitchell was seventy-two years of age. She was born in New Milford, Pennsylvania, and at the outbreak of the Civil War, left her avocation of teacher and became an army nurse. In 1871 she graduated in medicine and came to Burma in 1879, being the first medical missionary sent abroad by the Baptist Union. She laboured successfully in Moulemein for over twenty years.

SHORT ITEMS AND PERSONALITIES.

Military Assistant Surgeon Claude Cyrie Kelly, who is now stationed at the Imperial Hospital, R. A. M. C., Vergheld, Transvaal, South Africa, has been offered the District Surgeoncy of Vergheld, but the Government of India could not at that time spare his services. He has now been offered the position of Medical Officer of the Police Force, with a King's Commission, which, if the Government of India allows, it will entail his resignation of the I. S. M. D.

Of the four extra pensions of £100 each, available this year for I. M. S. Officers, those for the Bengal and Bombay Commands go to Lieutenant-Colonels J. Young, E. Bovill, and H. MacCalman, with effect from the dates they respectively retire. Lieutenant-Colonel E. Palmer, who retired last month, receives the pension rendered available owing to Colonel Young having accepted an extension of service.

The sixty-ninth annual meeting of the British Medical Association will be held at Cheltenham on Tuesday, Wednesday, Thursday, and Friday, July 30th, 31st, August 1st and 2nd, 1901.

President: William Alfred Elliston, M.D., Consulting Surgeon, East Suffolk and Ipswich Hospital.

During the week before last 23,735 doses of plague vaccine were issued from the Imperial Research Laboratory at Parel, of which 10,020 went to Bangah in the Jullunder district; 4,000 to Jullunder; 2,000 to Gurdaspur, Agra, and Karachi; respectively; 1,182 to Gaya; 1,206 to Kashmir; and 1,000 to Faiba, in Marwar.

The fanatic who killed Captain Johnston, I. M. S., at Loralai, has succumbed to a prolonged attack of pneumonia, which termination of his life is believed to have produced a greater effect on the people of Baluchistan than if he had been executed, he thereby being deemed cursed of God.

Dr. A. H. Deane, Chief Medical Officer of the Bombay, Baroda and Central India Railway, has been granted three months' privilege leave. Dr. W. Crofts, from Bandikui, probably acts for him.

Mr. V. St. J. Croley, L.R.C.P. and S., Edinburgh, who has been secured by the Bengal Nagpur Railway Board as the second new Assistant Medical Officer for service in India, has arrived in Calcutta.

Sir Wm. Selby Church, M.D., has been re-elected President of the Royal College of Physicians of London by a practically unanimous vote.

An examination for Commissions in His Majesty's Indian Medical Service will be held in London in August next. The exact date will be announced later.

The widow and children of Lieutenant J. G. D'Silva, I. S. M. D., who committed suicide some time ago in Bombay, have been admitted to the usual pension.

Assistant Surgeon P. A. McCarthy, formerly Civil Surgeon of Sandaway, has been transferred to Monywa, Upper Burma.

Major G. B. Barrow, R. A. M. C., died at Calicut of malaria.

Current Medical Literature.

MEDICINE.

Occasional Symptoms produced by Moveable Kidney.

In the *Lancet*, Dr. MACLAGAN and Mr. TUSVES report three cases in which moveable kidney produced symptoms resembling those of gall-stones.

The first was in a woman aged 35, who had suffered for three years from attacks of epigastric pain, indigestion and weakness; there was constant abdominal discomfort and occasionally severe attacks of pain lasting several hours; these became more frequent and severe and were followed by slight jaundice. There was tenderness over the epigastrium and left lobe of the liver, and the right kidney was moveable. During one attack of pain there was much tenderness over the seat of pain and distension of the gall-bladder, and the temperature rose to 99.8° F. On laparotomy being performed, the gall-bladder and ducts were found normal, but behind the former was the right kidney. Nephropexy was performed through a lumbar incision, since which the patient remained well and the symptoms have not recurred.

Case 2 was similar, except that the patient had passed one gall-stone, which was found in the faeces. The upper end of the displaced kidney was lying on cystic duct. This patient was also cured by nephropexy.

Case 3 almost exactly resembled the first one.

In all these symptoms of hepatic colic followed by jaundice were produced by pressure on the bile-ducts of a displaced right kidney.

Dr. P. FENWICK, in the *Lancet*, November 1899, published a case in which repeated severe jaundice was caused by pressure of displaced right kidney on the gall-bladder and bile-ducts. This patient was also cured by nephropexy.—*Med. Times and Hosp. Gazette*.

Treatment of Ascites in Cirrhosis.

DR. CHADLE, in the *Lancet*, says the whole principal treatment is not to be summed up in the removal of the abdominal dropsy, but this is important, as it relieves distress and releases the embarrassed vital organs from fatal pressure and improves the general condition and renders temporary recovery possible. The old practice was to attempt to remove the fluid by hydragogue purgatives and diuretics. Hard purging is pernicious and may cause a diarrhoea which cannot be checked, and carries off the patient; also it is usually ineffectual in reducing the dropsy and interferes much with absorption of nourishment. Diuretics are harmless when the kidneys are sound, but injurious when they are diseased, and also are futile owing to pressure of the fluid on the renal veins interfering with the circulation through the kidneys; after the removal of some fluid by paracentesis, there is often a copious flow from the kidneys without the aid of diuretics. Dr. CHADLE believes restriction of the drink of the patient is of some value as an adjunct to other treatment.

The only reliable plan of removing the fluid is by paracentesis, and its postponement until the vital machinery is seriously embarrassed is a fatal error, and early and repeated paracentesis is an essential part of the author's treatment; he believes that the early removal of the fluid enables the patient to live longer in comparative comfort instead of suffering a shortened life in unmitigated distress. Tapping in the very last stages of cirrhosis often hastens death. Dr. CHADLE quotes several cases in which favourable results followed from early and repeated paracentesis and treatment of the underlying liver condition.—*Med. Times and Hosp. Gazette*.

Hereditary Valvular Disease.

ED. R. SUADER, in the *Mahemannian Monthly* for December, discusses the question "Is valvular disease of the heart transmissible from parent to offspring?"

He presents a study of eleven families coming under his personal notice, and their history furnishes much food for thought along this line. In closing, he says:—

It is probable that the anatomical defects of an acquired valvular lesion can be transmitted from parents to offspring.

It is more than probable that the greater number of cases of what may be considered congenital valvular defects arise from an intra-uterine endocarditis.

That lesions are not always transmitted, even when serious, because (a) the disease that gave rise to the lesion has passed away and left only its monument in the parent; (b) because of nature's eternal tendency to preserve her normal types; (c) because of the possible nullifying influence of an unaffected parent; (d) because of the temporary or permanent absence of an active blood state in either or both parents capable of setting up an endocarditis.

That we cannot be certain that organic valvular disease will or will not be transmitted.

That a mother suffering from an acute or sub-acute blood state capable of inducing an endocarditis is liable to pass that blood state to offspring and induce a valve incapability if conception occurs at the time the blood state is active. That we cannot yet give a positive opinion as to the exact liability of transmission to cardiac cases contemplating matrimony. We can only state the degree of probability.

That a practical deduction from a consideration of all these factors is that investigators of the present and future should devote more time to the determination of blood states capable of inducing valvular lesions and their modification by therapeutic measures.—*Char. Med. Jour.*

Forms of Tremor and their Clinical Characters.

R. T. WILLIAMSON states that the relation of tremor to voluntary movement enables us to arrange the cases into three groups; but there are other sub-varieties: (1) Tremor occurring during repose of the limb, but ceasing or diminishing on voluntary movement, with intention tremor, which ceases when an object is grasped, or when the hands are held out. The tremor in paralysis agitans is usually of this form. (2) Tremor occurring only on voluntary movement and ceasing during repose (intention tremor). This is the form of tremor in disseminated sclerosis, even at an advanced stage; but several other forms of tremor, at a very early stage, occur only on voluntary movement. (3) Tremor which occurs during repose, but which is much greater during voluntary movement, as in most cases of marked alcoholic, senile, asthenic, simple, and hysterical tremor, and in several other varieties.—*Med. Chronicle.*

Presystolic Murmur of Mitral Stenosis.

GIBBS is of the opinion that the presystolic murmur of mitral stenosis is composed of three parts: (1) The audible right ventricular vibrations. In consequence of the lack of synchronous action of the two ventricles, a portion of the systole of the right ventricle takes place and its muscular vibrations are heard while the left ventricle is in diastole. (2) A murmur caused by the flow of blood from the left auricle into the left ventricle. (3) The slapping first sound. The author's experience leads him to believe that in pure mitral stenosis the apex beat is always formed by the right ventricle, and that the left ventricle is not in contact with the chest-wall. He considers that the predominant feature of mitral stenosis is the want of synchronism in the action of the two ventricles, the right assuming in part the function as well as the rhythm of the left auricle.

SURGERY.

Retrenchment of Lipomatous Abdominal Wall.

IN the case reported by BULLITT, the subject was a very adipose woman, 38 years old, suffering from umbilical hernia. The operation performed consisted in taking a reef in the abdominal wall by dissecting out and removing a large portion of skin and muscle, which weighed several pounds. The abdomen, though greatly reduced, was still somewhat pendulous, and he thinks it somewhat of a mistake that the retrenchment was not more extensive. He remarks that resection of a fatty abdomen, which he has described, constitutes a procedure of which he has not been able to find a description, though doubtless it has been done before. The incision down to the deep fascia is at right angles to the line of least resistance of the deep abdominal wall. Its extent gives ready access to the hernial ring and permits unembarrassed closure of the deeper structures. Most of all, it reduces the ponderous, distressing and entirely superfluous abdominal pouch. If this case can be taken as an index, there need be no fear of failure. The patient, writing under recent date, reports herself in excellent condition, able to attend to her household duties, and with no signs of recurrence.—*Jour. Amer. Med. Assoc.*

Penetrating Wounds of the Chest.

DUNN (*St. Paul Medical Journal*) says that the vast majority of chest-wounds, particularly in the Northwest, are those caused by pistol balls. After reviewing the literature on the subject, particularly that relating to wounds of the heart and pericardium, he discusses the treatment of chest-wounds as follows: (1) In all penetrating chest-wounds avoid exploration, disinfect the parietal wound, and immediately apply an occlusion dressing with partial immobilization of the chest. Calm the circulation by quiet, and if necessary by opiates. Watch closely the possible supervention of internal hemorrhage and infection. (2) Intrapleural effusions of blood, though considerable, if not threatening life, should not be evacuated too hastily. Time should be given for definite cessation of the hemorrhage, then it may, during the second and third weeks, be gradually removed by aseptic paracentesis. (3) In case of severe and progressive internal hemorrhage, its source, i.e., whether parietal or pulmonary, should be settled. The former should always be controlled by forceps or ligature without opening the chest, and the latter, if progressive and causing dangerous anemia, dyspnea, and disturbed cardiac action, may demand a large plastic thoracotomy and suture or tamponade of the lung parenchyma. In a certain few stab-wounds of the heart suture is practicable. (4) However, in practice it is chiefly the advent of sepsis which requires surgical interference in these injuries. When either pleura or pericardium becomes distended with infected fluid, it should be promptly opened freely and drained precisely as any other purulent pleurisy or pericarditis.

Surgery of the Gall-Bladder.

DR. A. VANDER VEER, of Albany, said that no great reliance is now placed upon jaundice as a positive symptom. Four interesting and instructive cases are reported and the following conclusions drawn: (1) An early diagnosis is important. (2) In suppuration of the bladder with adhesions, a most thorough examination should be made from within by digital exploration and use of the probe for any possible deep-seated calculi. (3) In prolonged operations upon the common duct or hepatic ducts, where adhesions are present

and it is difficult to close the incision after removal of the calculus, drainage through the peritoneal pouch by means of the lumbar stab is advisable. (4) When the patient is suffering seriously from cholemia, with marked ecchymotic spots over the body, intense itching, the blood examined and found in a septic condition, an operation is not to be encouraged. (5) General practitioners as well as the surgeon should place more earnestly before the patient and friends the dangers of repeated attacks of gall-stone irritation resulting in cancer of the ducts, stomach or liver.—*Med. News.*

Varicose Veins of the Lower Extremity.

MAYO (*St. Paul Medical Journal*), in discussing varicose veins, calls attention to the small support given the superficial veins of the leg. This deficient support offers an explanation for their frequent varicose condition. The venous coats are less liable to degenerative changes than those of the arteries. He quotes BENNETT on the classification of varicose veins: (1) Those which are congenital; (2) those caused by obstructed blood-current; (3) those caused by trauma, that is, those caused by strain without thrombosis; and (4) those which result from thrombosis. Varix of the leg following injury requires elastic support. The support is continued for several months, and in many cases a cure will result. Elastic support is seldom of benefit extending above the knee. The supporting treatment is used with benefit in many patients who do not lead active lives and are able to give time and attention to prevent an increase of the disease. There are many methods of curing ulcer, the essential features of which are cleansing and rest in bed or support by bandage. The sloughing ulcers with edema and of foul odour may be readily cleaned by applying one or more yeast poultices. KOHLER grafts ulcers by the THIERSCH method without removing granulations, but it is more satisfactory to excise the ulcer and remove the fibrous base which, if left, later impairs the vitality of the graft, then a THIERSCH or WOLF graft may be applied with good prospect of success. SCHEDE's operation may prove beneficial, but should the deeper veins be thrombosed and varicose, the operation may cause gangrene by cutting off the return circulation from the foot.

Case of Contusion Injury to the Eyeball, followed by Fulminant Glaucoma: Recovery without Operation.

H. L. MYER says—Patient was struck by a stone in the right eye while on a railroad train. The coats of the eye were unbroken; the iris intact and tension normal. There was a small portion of detached retina and several small retinal hemorrhages produced by the blow. There developed in a few days a forward dislocation of the lens in absence of much tension. There was a delay of high tension and cyclitis in the presence of an apparently closed iris angle for 19 days. The rise of tension developed suddenly, just as the case seemed on a fair road to recovery. The extreme acute inflammation following rapidly subsided under full doses of quinine and sodium salicylate.

Lupus treated by Excision.

E. LANG gives the results of eighty-five cases of this disease, in which the affected portions of skin were excised and the defect covered by a plastic operation. Of this number thirty-nine are for various reasons not available for statistics, but forty-six remaining have been free from recurrence for periods varying from one to seven years. Most of these had already for years been subjected to skilful medical treatment without permanent improvement, and in view of the absolutely positive results obtainable by surgical intervention, the author strongly advises the measure in all cases in which a sufficiently radical operation can be done.—*Klinisch-therapeutische Wochenschrift.*

OBSTETRICS AND GYNECOLOGY.

Hand and the Finger in Abortion Remnants.

STAHL reports three cases of abortion treated by curette to show the special distinct advantages which the finger possesses over the curette: (1) The superior advantage of the finger in recognizing the presence of foreign bodies in the uterus. (2) The advantage of shelling out the secundines intact with the finger instead of the usual morselling by the curette and forceps. Both of these advantages are of much importance. In reply to the objection that the tip of the finger cannot reach the fundus, the writer claims that although the index finger may often be too short and unreliable, this is not true of the middle finger, which is longer, stronger, and swivels better, and he has never yet failed in its use. Abdominal pressure is necessary with the other hand. To the second objection that curette is more painful than curettage, STAHL replies that it should not be so, especially if chloroform is given. Even were it so, the security of knowing that the cavity is clear, and that all danger has been removed, amply repays for the slight transient discomfort produced by the introduction of the half hand into the vagina. It is only a clumsy operator who is brutal, nor is such awkwardness a feature of digital manipulation alone, for a clumsily handled instrument is far more efficacious in inflicting pain than is the finger.—*Phil. Med. Jour.*

Treatment of Ectopic Pregnancy.

WITH reference to the treatment of ectopic pregnancy, MANIERE believes that in all the early cases diagnosed before rupture has occurred, there is only one method of procedure which is uniformly reliable and safe, namely, abdominal section and removal of the pregnant tube. HERZOG claims that the most frequent primary cause of interruption of tubal pregnancy is neither rupture nor abortion, but hemorrhage from the tubal wall or gestation-sac into the intervillous space, which in the course of time will generally cause the death of the embryo. From microscopic examination in two cases reported, it was seen that hemorrhages had occurred in the intervillous space, and extensive blood coagula had been formed in them. These had damaged the villi, interfered with the nutrition of the embryo, and caused its death. If it should be possible to establish a set of symptoms as characteristic for "intervillous hemorrhages," the operator could step in in good time to save his patient from the great dangers of subsequent rupture.

Difficulties after Perforation.

BROSE delivered a primipara, aged 28, about term. The soft parts were very rigid, the pelvis of the simple flat type, the conjugata vera $3\frac{1}{2}$ inches. There seemed to be miscalculation of the pregnancy; the last period was seen in the middle of April 1899; on February 23rd, 1900, the fetus seems to have died; on March 3rd labour pains set in; the patient had taken hot baths. Two days later BROSE was called in, the os was dilated, the membranes unruptured. On breaking them sanguineous fluid escaped as usual when the fetus has died. A few hours later, as the head had not entered the pelvis, he performed craniotomy. The cranioclast was found necessary, the head was drawn down to the vulva, but the shoulders could not be pulled into the pelvic cavity. So rigid were the soft parts that the arm could not be brought down nor the thorax perforated. Decapitation was performed, then one arm was drawn down; on traction it was torn off. One foot at length was reached, and on turning the trunk was delivered. The bloodless and brainless fetus weighed very nearly 8 lbs. BROSE remembered

THERAPEUTICS & PHARMACOLOGY.

Treatment of Tuberculosis by Cinnamon.

KROMPCHER has conducted a series of experiments to test the value of LANDERER'S treatment, which is founded upon the researches of RICHTER. Cinnamic acid, according to RICHTER, caused the tubercles of inoculated rabbits to show fibrous transformation and a tendency to cure, instead of undergoing the usual course of caseation and softening. KROMPCHER inoculated animals with cultures of varying virulence, and after an interval injected cinnamate of soda into the veins. He also investigated the question of preventive action by beginning treatment with the drug some days before the inoculation with tubercle. In all cases untreated animals were inoculated at the same time for purposes of comparison. Cinnamate of soda was found to cause a temporary leucocytosis three to four hours after administration, with hyperæmia of the bone marrow. The stroma of the lungs was appreciably increased by a succession of injections, owing, it is believed, to mechanical irritation. Preventive treatment was found to give no immunity against infection by virulent tubercle bacilli; and suitable animals inoculated with virulent bacilli died from tuberculosis, in spite of the treatment with cinnamate of soda, as rapidly as the animals used for comparison. The only animals inoculated for RICHTER'S control experiment lived for seven months afterwards. Hence it is likely that for his experiments cultures of small virulence were employed, and that the healing was merely due to natural tendency to recovery.—*Brit. Med. Jour.*

Action of Cacodylates.

DR. WM. MURRELL'S strictures, in regard to the action of cacodylates are disputed by DR. KINSLEY-MORGAN, who, writing to the *British Medical Journal*, from more extensive experience with the new remedy, assures practitioners that, given in proper doses and in suitable cases, it is perfectly safe. Dr. MURRELL appears to have given a sodium cacodylate of French manufacture in 1 gr. doses three times a day to a single patient. Dr. KINSLEY-MORGAN suggests a more extended trial of the remedy, in doses of $\frac{1}{2}$ gr. to $\frac{1}{4}$ gr. twice daily. He recommends Messrs. SQUIRE & Son's liquor kakodylicus, which he has been in the habit of using. We learn from Messrs. SQUIRE that this preparation is intended for hypodermic administration. They make it from a specially pure sodium cacodylate which they manufacture themselves, and it is sterilised. They make other preparations, the liquid for administration *per os* being elixir kakodylicus. This is an elegant galenical in which the first taste of the cacodylate is admirably concealed. The dose is $\frac{1}{2}$ to 1 dr. There is no question that impure cacodylates are dangerous, but pharmacists and physicians have the advantage of Messrs. SQUIRE'S guarantee that these and other preparations which they manufacture are pure and constant.—*Chemist and Druggist.*

Antidotes for Iodism.

In a general article on iodism, DOUGLAS W. MONTGOMERY says that iodism depends on a personal peculiarity of the patient, and idiosyncrasy, and nothing will absolutely prevent it where the tendency exists. There are some agents, however, which sometimes are capable of modifying some of the symptoms of iodism. They are belladonna, FOWLER'S solution, bromide of potassium, morphine, salol, sulphuric acid, bicarbonate of sodium, chlorate of sodium. Belladonna is by far the best drug to relieve the coryza-like effects of iodide of potassium, and MONTGOMERY generally gives five drops of the tincture with each dose of the iodide. Any other preparation of the drug, such as atropine, may be used. It may also control some other forms of iodism, as in the case mentioned, in which it prevented oedematous swelling in the neighbourhood of the eye. FOWLER'S solution is undoubtedly the best associate drug to use when iodide of potassium causes indigestion. It is best given in one or two-drop doses, just as one would prescribe it for indigestion.—*Med. Age.*

Treatment of Acute Alcoholism.

THE expectant plan is the most rational. Opiates are dangerous, because they additionally derange digestion, and, acting as powerful cardiac sedatives, tend to paralyse the heart, and, finally, because they check elimination, interfere

with the normal secretions and digestion. Sleep is never to be attained at risk or hazard to the patient, but is to be expected as one of the harbingers of a convalescence not to be enforced. In acute alcoholism, as in many other acute diseases, the *vis medicatrix* is fully adequate in most cases to produce the happiest results.—Dr. J. K. BAUDUY, *St. Louis Medical Review.*

For Constipation in Children.

THE following is said to be an effective remedy:—

Pulv. rhei	...	...	gr. xxviii.
Pulv. ipecac	...	...	gr. iv.
Sodii bicarb	...	...	gr. ix.
Syr. simp.	...	...	℥iv.

M. Sig. Teaspoonful every three hours.

For Fatty Heart.

R Sodii arsenatis	...	...	gr. $\frac{1}{4}$
Potass. iod	...	...	gr. $\frac{1}{2}$
Pulv. nucis vom	...	...	gr. $\frac{1}{4}$
Pulv. rhei	...	...	gr. $\frac{1}{2}$
Ext. dulcamare	...	...	gr. iiii.

M. ft. pil. No. 4. To be taken daily.—A. ROBIN.

For Follicular Tonsillitis.

R Creosoti	...	...	℥x.
Tinct. myrrhe	...	...	...
Glycerini	...	...	aa
Aqua	...	...	q. s. ad ℥iv.

M. Sig. Use as a gargle or spray four or five times daily.

Correspondence.

THE DACCA MEDICAL SCHOOL.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I would deem it a great favour if you would kindly publish the following tale of grievances regarding the Dacca Medical School through the medium of your much-esteemed journal:—

The grievances are so many and of such a sweeping nature that one hardly knows when to begin. The Dacca Medical School being the only one of its kind in this part of the country, every care ought to be taken by the authorities for the efficient management of the institution; but this is far from being the state of things. The teaching staff is so very weak for the present that good teaching can hardly be expected. No one can become a good teacher at a bound; even he who has been a very good student in his time requires an amount of experience to become a good teacher; but such a thing is not to be allowed in this school. As soon as a teacher gains a fair amount of experience, he is removed and a new one is set up in his place. It need not be told how much the interest of the students suffer from these continued changes in the teaching staff. So far about the teachers and the teaching staff. The importance of dissection can hardly be overrated in connection with the study of anatomy. Even the map is not of more importance to the study of geography. Here again the students have got a sorrowful tale to unfold: they are formed into separate batches of seven, eight or even nine, which numbers are most inconvenient, considering the size of the table on which they are to work. These batches often get parts of the human body, such as the forearm, thigh, neck, etc.—small enough to allow only two of every batch to dissect them—while from the size of the dissecting table the rest of the same batch cannot even simultaneously observe the dissected portion minutely, especially when one batch has to dissect one part of the neck and another batch has to trace the carotid artery and its branches from another part of the same neck. Even those parts which are distributed to the first and second-year students are not properly injected or washed with the antiseptic

lection. This is surely dangerous, and the authorities ought to be more careful about this. The dissection over, the students generally get—everyone of them, yes, everyone without exception—two cubic pieces of ordinary bar-soap, $\frac{1}{4}$ of an inch in every dimension, to wash their hands with. It is clear that two such small pieces are quite insufficient for the purpose, because the instruments used have also to be washed along with the hands. The authorities should be told that the lives of so many wretched fellows are of not less importance—even not a bit—than the teachers and the demonstrators who always get sufficient quantity of carbolic soap even only for entering the dissecting room and touching the instruments to dissect with. We hope that the Superintendent of the school will kindly enquire about it and try to remove such difference in giving soap. Besides this, the dissecting tables are lined with tin; and these tin sheets cannot be cleaned properly after the dissection. Would it not be better to have the tables made of slabs of white marble as in the Campbell and other medical schools and colleges?

But these grievances are nothing compared with what follows. The examination system is a perfect piece of jobbery, carried on to shameful lengths. It is in the established rules of the Dacca Medical School that the yearly examinations are to commence precisely at 1. P. M., and the students are to give in their answer papers after three hours from the commencement of the examination. But the capricious examiner, the supreme lord for the time being, comes to the examination room usually some minutes after the prescribed hour, keeping all the students anxiously awaiting him all the time. Then, instead of distributing printed question-forms, he goes on dictating his questions, which were perhaps hurriedly prepared during the previous hour and a-half. Even after this he does not allow to the students their allotted three hours' time, but generally curtails it by one hour or so. The answers are allowed to be written on loose sheets of paper, which are then stitched at one corner. That this system is not good, is evident. It has often happened that a student has answered all the questions satisfactorily, while the examiner has got only a part of his answers—some of the answer-sheets being surreptitiously torn off in their passage from the examinee to the examiner. Such a state of things ought not to be allowed anywhere, much less in a respectable Government institution. Properly stitched *khata*s, bearing the signs of the school, should be used, and printed question-forms distributed as in every University and class examination. The authorities would do better to set their eyes on this. We most earnestly hope and trust that Dr. MACRAE, in his capacity of Superintendent of the School, would look to this, and remove these grievances so keenly felt by all the students.

Yours, &c.,
A SYMPATHISER.

MARRIAGE AMONG LEPERS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—There are so many able, worthy and experienced men capable of doing justice to the subject of marriage among lepers, that it is with much diffidence I beg to offer a few observations, giving my personal experience and some practical hints obtained in the Madras Government Leper Hospital. For notes on interesting points on the subject of leprosy, I would refer the reader to the Triennial Report on Civil Hospitals and Dispensaries, Madras, 1897, wherein Lieutenant-Colonel LEE, I.M.S., the then Superintendent of the Asylum, has dealt with the disease in full. In my experience, besides a history of

hereditary taint, most patients confess contracting the disease through sexual intercourse or marriage with a leprosy person. In many cases I have had under my charge, which at the time of admission were not seriously advanced or only of the milder types, such as the anaesthetic variety, the signs and symptoms developed rapidly and suddenly into those of the worst form in a few days. A close enquiry led in nearly all cases to either a confession of misconduct, or to a suspicion of such, with some inmate of the asylum. This is invariably done by the parties absconding and eluding the vigilance of the gate-keepers, or by obtaining previously leave of absence to visit some sick relative. In the asylum itself, even married couples are strictly prohibited from visiting each other save for a short conversation openly on two days in the week. Instances of leper couples are not rare, but their history invariably indicates that one of them was originally free from this loathsome disease, and fell a victim to it through the marriage, and in those cases where one suffered from the less severe types of the disease, the symptoms were soon aggravated into those of the worst type. Marriage in such cases is undoubtedly, I think, not only detrimental to the health of the parties concerned, but the progeny of such marriages is also very susceptible of infection. Can we, then, with any sense of propriety, advocate a married life among these classes, or approve of linking the fate of an innocent girl with that of a leprosy husband, thereby rendering loathsome miserable the lives of the couple, and worse still perhaps, stamping the indelible marks of leprosy on their offspring. Nothing can be more ghastly than the thought of handing down to posterity one of the most cursed and loathsome maladies that flesh is heir to.

Yours, &c.,
T. RAJANAYAGAN PILLAY,
Hospital Assistant, Plague Duty, Tumbudra.

RESIDENT MEDICAL OFFICERS IN THE CALCUTTA HOSPITALS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—May I request the favor of your kindly inserting the following correspondence in the next issue of your valuable paper with any remarks that you may think necessary to make:—

As the resident medical officers in the Medical College, Eden and General Hospitals are prohibited from private practice, I do not understand why an exception has been made in the case of the Mayo Hospital. The medical officer of this institution carries on a large private practice, and can be seen driving in the Calcutta streets day and night, with the exception of a couple of hours in the morning. Evidently he does this with the consent or connivance of his superior officer, the Superintendent of the Hospital, as he calls the latter in consultation in many cases. I can hardly bring myself to believe that the work of a large hospital can be satisfactorily done with a meagre establishment, when the resident medical officer pays more attention to his private practice than to his legitimate work, for which he receives a very liberal pay and handsome free quarters.

Yours, &c.,
A. C. NANDI.

HARRISON ROAD, Calcutta, 15th April 1901.

(We believe the medical resident in all the other hospitals named, except the Mayo, receive high salaries and free quarters. In the Mayo the salary is small, and the resident is allowed private practice besides. Of course this is wrong in principle, and should be stopped.—Ed., I.M.R.)

WHY ARE BENGAL ASSISTANT SURGEONS SUBJECTED TO FINES?

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to "SUB-DIVISION'S" letter re Deputy Superintendentships of sub-divisional jails in Bengal, published on page 528 of the *Indian Medical Record* of the 14th November 1900, the rules he has quoted distinctly show that the anomaly complained of really exists. Bengal Assistant Surgeons should immediately submit a memorial to Government praying that the system in vogue in the N.-W. P. and Oudh be adopted, and that the obnoxious paragraph about fines be cancelled. The Inspector-General of Civil Hospitals cannot take any action until the matter is officially represented to him. Merely "relying" on him, expecting that "his attention will be drawn to the subject" through the columns of the *Indian Medical Record*, won't do. Those who are directly concerned should help themselves, to be up and doing, instead of apathetically "relying" on others to take the initiative. The rule is evidently an old one, and one of these absurdities which creep in insidiously without being noticed at the time of coming into existence first. The person who drafted it and those who passed it do not appear to have taken into account the fact that the infliction of fines on gazetted officers is not permitted by Government in any of its departments, and it is still more regrettable that the Assistant Surgeons of the time were sleeping and did not ask Government to cancel it immediately. I really hope that for delay in submitting returns, etc., gazetted officers are not liable to be whipped—"in the way of school discipline"—as the Whipping Act has it.

Yours, &c.,
TOMTIT, M.B.

(We heartily commend this letter to the attention of Bengal Assistant Surgeons, though we feel sure such an injustice to them has merely to be brought to light to be redressed by the Inspector-General of this Province. We would beg to invite Colonel McCaughey's kind consideration of the subject.—Ed., *I. M. R.*)

UNPOPULARITY OF THE MILITARY HOSPITAL ASSISTANT CLASS OF THE I. S. M. D.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The Hospital Assistant class has become unpopular, because they are not paid well and there are no further good prospects in the department, except for men who have got money. Many go to England and pass the examinations there, as some of the Madras Hospital Assistants have done! As this class is poorly paid, very few educated candidates apply for the vacancies. They go elsewhere for better appointments. The only class of candidates to be got are the Urdu educated men.

If the Government of India had taken the merits of Hospital Assistants of the four Commands into proper consideration and then framed the rules for pay, etc., there would not be any unpopularity. The Government have,

however, taken into consideration the merits of Bengal Hospital Assistants, but they are Urdu educated men, and their professional studies are not done in English; their education is much below the requirements, for the simple reason that there are several English technical words and phrases in each medical subject which cannot be translated or explained fully in Urdu: hence, I say, their medical education is much below the other classes of Hospital Assistants. Men educated in English are admittedly able to cope with Assistant Surgeons.

Why does not the Government of India take candidates educated in English and abolish all Urdu medical colleges and schools. There are lots of English educated men now-a-days, and with better prospects they would join the *Military Hospital Assistant* class.

Yours, &c.,
A. M. L.

* *Burma, 14th March 1901.*

SPECIAL PROMOTION THE BANE OF THE I.S.M.D.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—It is time that a great grievance concerning special promotion for field service for members of the I.S.M.D. be stopped.

I own that good work is done in the field by some, but the work, as a rule, is never harder than that of Assistant Surgeons left short-handed in cantonments.

The means employed in some cases to gain recognition and promotion in the field are, to say the least, shady. A little work done in a day or a week in the field is sometimes compensated for by a promotion which would otherwise take from five to ten years to gain, and that with constant hard work in cantonments.

I have been on field service several times, and have noted that the best and most hardworking men are generally left out in the cold, because they do not cringe enough, and that the more one can bring his level down to that of a bearer, the better his chance of success.

Some Assistant Surgeons make a boast before going on field service that their main object in doing so is "special promotion." A knowledge of regulations, &c., is not necessary with them. They generally manage to gain their object by other means.

What should gain the highest recognition is *bravery in the field, and that only*, all others should be compensated with money awards.

I would suggest a remedy, which would suit all parties. If a man is to be promoted, and by so doing gains five years, let him have the money he would get for that promotion, but do not promote him over his betters.

Yours, &c.,

FAIR PLAY.

(The points raised are well worth consideration by the authorities.—Ed., *I. M. R.*)

TRADE NOTICES.

XEROFORM.

THIS recent antiseptic has been well recommended by many eminent Continental authorities as a substitute for iodoform for all purposes for which the latter is now utilized. Its advantages are said to be that it is absolutely non-poisonous, practically odourless, never causes eczema, is free from germs, has a very powerful action upon bacteria, and is sterilizable by simple beating; whereas iodoform is known to be very poisonous with a marked and persistent odour, causing eczema, being infective, as it contains germs, having a feeble action upon bacteria and not being sterilizable in its ordinary form. Xeroform causes cicatrization to take place most rapidly: it shortens the course of wounds even when they have been present for some time. To develop its full activity, it must come into immediate contact with the cicatrizing wound surface or the mucous membrane. All detritus, pus crusts, scales, coagula, etc., must be removed before it is applied. It is said to be more efficacious, and is certainly much cheaper than iodoform. In addition, it has been most successfully used as an intestinal antiseptic in a wafer or in mucilage. Elaborate and careful researches and reports by some of the best authorities testify conclusively to the value attached to the use of this remedy in all surgical cases, in venereal and skin diseases, in ophthalmic therapy and as an intestinal antiseptic, and a consideration of these writings leads us to recommend its adoption to all who desire success in surgery. We shall be pleased to report any cases which the profession should send us dealing with the action of this drug, which promises to be one of the most effective of recent discoveries in antiseptic remedies.

"TABLOID" BRAND THREE SYRUPS.

THIS particular combination, which is an active preparation of iron, quinine, and strychnine, in the form of phosphates and hypophosphites, contains the equivalent of fifteen minims of EASTON'S syrup with fifteen minims of the compound syrup of hypophosphites and thirty minims of compound syrup of phosphate of iron. Each contains approximately gr. $\frac{1}{4}$ of strychnine.

Messrs. BURROUGHS, WELLCOME and Co. send the following preparation:—

The well-known instability of the syrups, especially when subjected to the temperature of warmer climates, has seriously interfered with their effective administration. On the contrary, the active ingredients contained in "tabloid" three syrups cannot undergo decomposition, thus ensuring accuracy of dosage combined with the highest efficiency. As "tabloid" three syrups are sugar-coated, they are pleasant to take, and are found to be acceptable by the most fastidious patients. Their convenience and ready portability enable patients to continue a regular course of treatment when following the ordinary round of social, professional, or commercial life.

Government Medical Gazettes.

BENGAL.

Temp. Asst. Surgn. Krishna Kjaore Chandra is admitted permanently into the service of Govt. as an Asst. Surgn. from the 4th March 1901.

Major J. B. Gibbons, I.M.S., Supdt. of the Campbell Med. School and Hospital, Sealdah, is allowed privilege leave combined with furlough for twelve months, viz., three months from the 26th April 1901, or any subsequent date on which he may avail himself of it, and furlough for nine months.

Lieut.-Col. J. French Mullen, I.M.S., Civil Surgn. of Rajshahi, is allowed privilege leave combined with furlough for two years, viz., privilege leave for two months and nineteen days from the date on which he may be relieved, and the remaining period under Article 840 (b) of the Regulations.

Major J. G. Jordan, I.M.S., on return from privilege leave, is apptd. to act as Civil Surgn., Rajshahi, during the absence, on leave, of Lieut.-Col. J. French Mullen, I.M.S.

Capt. J. T. Calvert, I.M.S., acted as Civil Surgn. of Puri from the 11th to the 18th Feb. 1901.

Senior Asst. Surgn. James Kelly, Civil Med. Offr., Sonthal Parganas, is allowed privilege leave from the 8th April to the 25th June 1901.

Asst. Surgn. Hari Charan Sen, attached to the Deoghur Subdivn. and Diap., is apptd. temp. to have med. ch. of the civil station of Sonthal Parganas, during the absence, on leave, of Senior Asst. Surgn. James Kelly.

Mil. Asst. Surgn. J. B. Rodricks, Med. Offr., E. B. S. By., Sara, is allowed privilege leave for one month.

Asst. Surgn. Dno Nath Mitter, Teacher of Anatomy in the Campbell Med. School, is allowed furlough for twelve months in combination with the three months' privilege leave granted him in Civil Med. Dept.

Asst. Surgn. Syed Mahomed Afzal is apptd., on probation for six months, as Teacher of Anatomy and Surgery in the Temple Med. School, Patna, vice Asst. Surgn. Banamall Roy.

Asst. Surgn. Banamall Roy, Offg. Teacher of Anatomy and Surgery in the Temple Med. School, Patna, is apptd. to act as an Additional Demonstrator of Anatomy in the Med. Coll., Calcutta, during the absence, on deputation, of Asst. Surgn. Jyotish Chandra Mustafi.

Asst. Surgn. Ananda Lal Bose, House Surgn., Outack Gen. Hosp., and Teacher of Surgery and Midwifery in the Orissa Med. School, is apptd. to act at the Diamond Harbour Sub-division and Diap. in the 24-Parganas, vice Asst. Surgn. Brojo Nath Choudhury.

Asst. Surgn. Narendra Nath Basu, House Surgn. of the Eden Hosp., Calcutta, is apptd. as House Surgn., Outack Gen. Hosp., and Teacher of Surgery and Midwifery in the Orissa Med. School, vice Asst. Surgn. Ananda Lal Bose.

Asst. Surgn. Harendra Kumar Das is apptd. temp. as House Surgn., Eden Hosp., Calcutta, vice Asst. Surgn. Narendra Nath Basu.

Asst. Surgn. Gopal Chunder Chatterjee, Teacher of Anatomy and Surgery in the Med. School at Dacca, is allowed privilege leave for sixty days from the 15th April 1901.

Asst. Surgn. Nripendra Nath Basu, Offg. Teacher of Medicine, Midwifery and Physiology in the Med. School at Dacca, is apptd. to act as Teacher of Anatomy and Surgery in that institution, in addition to his own duties, during the absence, on leave, of Asst. Surgn. Gopal Chunder Chatterjee.

PUNJAB.

Lieut.-Col. W. E. Griffiths, I. M. S., assumed ch. of the Civil Med. duties of the Kangra Dist. (Pharmanala) in addn. to his own duties on the 20th Dec. 1900, relieving Capt. E. V. Hugo, I. M. S.

Capt. H. M. Earle, I. M. S., held ch. of the Civil Med. duties of the Ferozepore Dist. in addn. to his mil. duties from the 10th Nov. to the 10th Dec. 1900, vice Major J. R. Adie, I. M. S., who resumed ch. on the latter date.

Capt. P. St. C. Mure, I. M. S., assumed ch. of the Civil Med. duties of the Sialkot Dist. in addn. to his mil. duties on the 11th Jan. 1901, relieving Lieut.-Col. J. Clarke, I. M. S.

The services of Capt. E. R. Parry, M. B., I. M. S., Supdt. sub-prison of the Mug Resit Central Jail, are required at the disposal of the Govt. of India in the Home Dept. from such date as he may relinquish ch. of his duties.

N.-W. P. & OUDH.

Capt. H. B. Melville, I. M. S., Offg. Deputy Secy. Commr., N.-W. P. and Oudh, to revert as Civil Surgn., 2nd class., and to be posted to Naini Tal.

Civil Asst. Surgn. Hari Dat Pant to be reduced from the 2nd to the 3rd grade of Asst. Surgn. from the 24th Feb. 1901.

Capt. W. Young, I. M. S., Civil Surgn., Gonda, to hold visiting med. ch. of the Bahraich dist. in addition to his other duties.

Lieut.-Col. J. Moran, I. M. S., Civil Surgn., Jhansi, furlough on med. certificate out of India, combined with such privilege leave as may be due to him, for a total period of twelve months from the 3rd April 1901.

Civil Asst. Surgn. Nilman Chaudhri, attached to the Sadr Dispy., Bahraich, to hold civil med. ch. of that dist. in addn. to his other duties.

Mr. H. David, Subordinate Judge, Allahabad, held ch. of the current duties of the office of Dist. and Sessions Judge, Allahabad, for three days from the 5th to 7th March 1901.

Major H. M. Adamson, R. A. M. G., Muttra, to hold civil med. ch. of that dist. in addn. to his other duties.

Major C. Macaggart, I. M. S., Secy. Central Jail, Lucknow, to officiate as Inspr.-Gen. of Prisons, N.-W. P. & Oudh, vice Lieut.-Col. G. O. Hall, I. M. S.

Milr. Asst. Surgn. J. Hardy, in civil med. ch. of the Muzaffarnagar dist., is placed on special duty in connection with plague in the Dehra Dun dist.

Civil Asst. Surgn. Ghulam Mustafa, attached to the Sadr Dispy., Muzaffarnagar, to hold ch. of the civil med. duties of that dist. in addn. to his other duties.

Lieut.-Col. J. C. C. Smith, I. M. S., Civil Surgn., Shaharanpur, to hold visiting med. ch. of Muzaffarnagar in addition to his other duties.

Maj. W. G. Thorold, I. M. S. (Bengal), Depy. Secy. Commr., N.-W. P., has been transferred by the Secy. of State for India to tempy. half-pay, from the 15th April 1901, subject to His Majesty's approval.

The services of Lieut.-Col. J. McConaghey, I. M. S., Civil Surgn., Lucknow, are hereby placed at the disposal of the Govt. of India, Home Dept., from the date on which he may relinquish ch. of his present duties.

Dr. E. J. Simpson, in med. ch. of Rae Bareilly, to officiate as Supdt., Central Jail, Lucknow, vice Maj. C. Macaggart, I. M. S.

The services of Lieut.-Col. G. C. Hall, I. M. S., Inspr.-Gen. of Prisons, N.-W. P. and Oudh, are hereby placed at the disposal of the Govt. of India, Home Dept.

Maj. R. Hore, R. A. M. C. to hold ch. of the civil med. duties of the Sitapur dist., in addn. to his milly. duties, as a tempy. measure.

The services of Civil Asst. Surgn. Hari Dat Pant are hereby placed at the disposal of the Govt. of Bengal.

The services of the undermentioned Asst. Surgns. are placed at the disposal of the Municipal Boards named for employment as Asst. Health Officers as a tempy. measure:—

Civil Asst. Surgn. Kanauji Lal, Lucknow.

Civil Asst. Surgn. Shimbhu Nath Milara, Fyzabad.

Civil Asst. Surgn. Har Persad, Muttra.

Civil Asst. Surgn. Guru Prasanna Baha, Agra.

Civil Asst. Surgn. Surendra Nath Banerji, Allahabad.

CENTRAL PROVINCES.

Three months' leave on med. certificate is granted to Civil Hosp. Asst. Muhammad Atab-ud-din.

Privilege leave for three months is granted to Civil Hosp. Asst. Ramlogan Singh, attached to the Deori Branch Dispy., Saugor Dist.

Civil Hosp. Asst. Sitaram Brinivas, on gen. duty at Wardha, is apptd. to the Deori Branch Dispy., during the absence on leave of Civil Hosp. Asst. Ramlogan Singh.

Civil Hosp. Asst. Hamid Basak Khan, of N.-W. P. Estab., was, on relief from famine duty under the P. W. Dept., directed to do duty under the orders of the Civil Surgn., Nimar.

Civil Hosp. Asst. Hamid Basak Khan, of the N.-W. P. Estab., on gen. duty at Nimar, was transferred to Chanda for famine duty in the Civil Dept.

Civil Hosp. Asst. Giridhari Parshad, who availed himself of the three months' privilege leave granted him, resumed ch. of his duties at the Waraseoni Branch Dispy., Balaghat, on the 12th March 1901.

On relief by Civil Hosp. Asst. Giridhari Parshad, Civil Hosp. Asst. Muhammad Amir, tempy. attached to the Waraseoni Branch Dispy., is directed to do duty under the orders of the Civil Med. Offr., Balaghat.

Civil Hosp. Asst. Sheikh Alimullah, on famine duty in the Civil Dept. in the Raipur Dist., was granted sick leave from the 23rd August 1900 to the 28th Jan. 1901.

Civil Hosp. Asst. Sheikh Alimullah is directed to do duty under the orders of the Civil Surgn., Nagpur.

The services of Civil Hosp. Asst. Asghar Hussain, of the N.-W. P. Estab., were placed at the disposal of the P. W. Dept. for famine duty in the Chanda Dist.

Civil Hosp. Asst. Satiyad Mehdi Hussain is directed to resume ch. of the Patan Branch Dispy., Jabulpore Dist.

On being relieved of the ch. of the Patan Branch Dispy., Civil Hosp. Asst. Abdullah Khan is directed to do duty under the orders of the Civil Surgn., Jabulpore.

Civil Hosp. Asst. Abdullah Khan, on gen. duty at Jabulpore, is apptd. on plague duty at that stn.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

MARRIAGE.

BALL-DISSENT.—At the Methodist Chapel, Multan, on Monday, the 10th April, by the Rev. J. McNair, Albert Edward Ball, of Bristol, to Ida May Dissent, L.M.S., Lady Doctor in charge Victoria Jubilee Hospital.

DEATHS.

COMLEY.—At Bhamun Tea Estate, Assam, on the 13th instant, Herbert Osmond, second son of Dr. and Mrs. J. M. Comley, aged 24 years, 9 months.

LAWRIE.—At the Residency, Hyderabad, Deccan, on the morning of the 8th April, of heart failure following influenza, Miss Elizabeth Annie Lawrie.

NOTICES TO CORRESPONDENTS.

M. (Delhi).—Go to some experienced physician in your station, and put your case in his hands. We shall be glad to answer any of your medical adviser's questions.

J. B. (Pekin).—Many thanks.

T. R. P. (Tangabundra).—The remedy referred to is absurd.

T. G. N. (Naunargudi).—Apply to the American dealers in this drug.

M. H. C. (Bombay).—Your paper has already appeared.

R. B.—Many thanks for papers sent.

T. B. (Shahabad).—The subject is too vast and should be treated of in a separate manual.

A. F. H. (Pander).—Consult the doctors of your town.

C. C. L. (Belgaum).—The legality of your claim will be considered as soon as the next division of claims is settled.

F. G. DeG. (Berhampur).—Thanks for your paper.

B. N. (Mirzapore).—Massage ought to do your patient a great deal of good.

J. W. (Secunderabad).—At an early date.

A. B. C. (Deolali).—Send in a complete statement of your case with record of evidence, and the Association will look into the matter.

A. D. (Bombay).—Thanks, will appear in an early number.

ORIGINAL ARTICLES.

OUR PRESENT KNOWLEDGE OF MALIGNANT DISEASE.*

By M. HANDFIELD-JONES, M.D. (LOND.), F.R.C.P.

IN medicine, more perhaps than in any science, it is true undoubtedly that there is "change and decay in all around I see," for if there is one truth more than another, clear to the student, it is this—that medical ideas have often to be changed, and medical theories are the most prone to decay.

It is the most hopeful sign that one's faculties are still active, when one is prepared to admit that the pet theories of one's youth are the absurdities of one's middle age. Every advance in medical science has been made by reviewing, from time to time, the recognized knowledge of some subject, changing much that is effete, and testing afresh the fixity of an old belief.

To-night, gentlemen, I purpose reviewing our knowledge of some of the phenomena of malignant disease, and trying to establish certain standpoints from which new advances may be made.

We may arrange our discussion to-night under three headings:—

- I. The mode of origin of malignant disease.
- II. The question of curability.
- III. Points of treatment.

I.—ORIGIN.

(1) In any discussion on the origin of cancer or any other malignant disease, we must necessarily regard two factors:—

- (a) The germs producing disease.
- (b) The resisting power of the patient's tissues.

At present, I hardly think we are in a position to speak with absolute certainty regarding the poisonous bodies or poisonous products which are concerned in the evolution of malignant disease; certainly those who have worked most thoroughly at the pathology of the subject seem to incline to the view that some form of microbic life plays the most important part in the production of cancer, judging from the analogy to tubercle, diphtheria and other diseases, which we know depend on the propagation of certain microbes.

It would be reasonable to believe that the cancerous germs are present at all times, in a greater or less degree, in every man's body, but need special conditions existent in their host to favour their active development. What these latter predisposing conditions may be, I am not prepared to discuss dogmatically; but I should strongly urge that they are conditions which consist in weakening of the resisting power of a man's tissues, and under this heading I would point out that cancerous disease constantly commences at the time of life when an individual's powers are on the wane, say from 50 to 60, or again, in an organ which has seen the most active part of its life and is becoming more ornamental than useful, *e.g.*, the female breast.

As regards the introduction of these particles into the human body, I would suggest that they probably come in some article of food which is widely and extensively used, such as potato, or other forms of starch.

Such a theory would explain the fact that in men cancerous disease is more often found in the stomach, intestines, or liver, and occurs later in life, while, in women, the breast and the womb are the favourite seats of the disease, and the latter occurs at an earlier period.

Whatever may be the differences of opinion regarding the nature of the poisons which are necessary for the production of malignant disease, surgeons are rapidly stereotyping their views regarding the changes which seem necessary for its full development.

In the first place, surgeons have gradually come round to the belief that malignant growths are not of this nature in their commencement, but that malignant degeneration occurs in an organ or tissue which has been already attacked by some neoplasm, or by some inflammatory process.

And in the second place, I would assume that extensive change does take place in an organ before the naked eye appearances, which are recognized as cancer, can be seen. This latter point is no new theory, but was practically taught years ago by Sir JAMES PAGET. I shall describe, shortly, two cases of uterine disease where this was well seen.

Mrs. D., aged 45, was sent to me in October 1899 by Dr. CUNDELL. She has had two children, the youngest aged 18 years old. For several months she has had sharp menorrhagia and metrorrhagia; her health has suffered considerably in consequence, and there has been some loss of flesh. Examination shows that the ovaries and tubes are healthy, but the body of the uterus is enlarged to the size of a small tangerine orange; its outline is smooth, and the organ is freely moveable. The cervix is somewhat hypertrophic, and the anterior lip is especially large; the cervical canal is patulous. As the symptoms pointed undoubtedly to some unhealthy condition of the endometrium, it was decided to dilate the cervix and explore the uterine cavity. Accordingly, chloroform was administered a few days later, and the cervical canal was dilated by HUGAR's instruments to No. 13.

The uterine sound passed upwards and forwards for 3½ inches. The cavity of the uterus was large, covered with fungoid growth, which bled freely on touch. The curette brought away a large amount of fungoid material, and then came down on a hard, gritty base. The endometrium was rubbed over with iodized phenol, and then the uterine cavity was packed with iodoform gauze.

The uterine scrapings were carefully examined by Mr. J. J. CLARKE, who reported on October 11th that the case was one undoubtedly of cancer of the body of the womb. On the strength of this report, it was decided to extirpate the whole uterus; but before doing so the opinion of an eminent gynaecologist was taken, and as he took the same view of the nature of the case, it was decided to remove the womb. A week or two later the operation was performed successfully, and the patient made a good recovery.

* Reproduced from *St. Mary's Hospital Gazette* by request.

Examination of the uterus after extirpation was of great interest. The surface of the endometrium had been completely cleared by the curette of all exuberant growth, and no evidence of any fungating tumour could be found. On the other hand the wall of the uterus was thickened to nearly twice its normal size, and sections of the tissue showed rapid proliferation of the connective tissue elements, increase of the intercellular material, some wasting of the muscular fibres, and general evidence of active tissue change.

The idea we formed was that some rapid pathological change had been taking place in the whole thickness of the organ, and that the fungating material which was removed by the curette was only the expression of a much more profound change affecting the whole of the uterus. Anyone looking at the uterus immediately after it had been removed would hardly have suspected that the case was one of malignant disease. Nevertheless the age of the patient, the clinical symptoms, and the evidence drawn from the scrapings, all bore out the existence of cancerous disease in an early stage.

Case 2.—Miss M., aged 47, came to me in the spring of this year complaining that for some weeks she had had continuous uterine hæmorrhage. This symptom had troubled her on and off for fully two and-a-half years, and about six months ago the cervix had been dilated and the uterus curetted, owing to the continuance and amount of the loss. After that scraping, monthly times had been normal for a time, but of late the trouble had recurred. Vaginal examination showed that the nulliparous uterus was markedly enlarged, and its tissues soft and spongy.

Various drugs were tried for several months, but as little good result was obtained, it was decided to dilate the cervix again and explore the uterine cavity. This was done in the early part of July 1900.

When the patient was under the influence of ether, bi-manual examination showed that the uterus was enlarged to nearly twice its normal size, and the uterine sound passed $3\frac{1}{2}$ inches upwards and forwards. On dilating the cervix with HEGAR's dilators and applying the curette, a large amount of soft fungoid material was brought away. These scrapings were carefully examined by an experienced pathologist, and shown to present the characters of cancerous growth.

There was marked proliferation and fatty degeneration of both the epithelial and connective tissue elements. The macroscopic, opaque, white spots in the scrapings appeared to be caused by foci of large fatty cells in the connective tissue.

Considering the long history of menorrhagia and metrorrhagia, the patient's age and the examination of the uterine scrapings, it was thought wise to extirpate the uterus, and this was done a few weeks later. Careful examination of the uterus after removal showed that there was great hypertrophy of the whole organ, that the uterine wall was remarkably thickened, and presented exactly the same appearance as that recorded in the last case.

There could be little doubt that chronic morbid processes had been going on for a long time in the uterus before cancerous degeneration became fully apparent. If we want further proof of this preliminary process attacking a tissue or an organ before malignant disease becomes evident, we have it in cases of epithelioma of the vulva.

In these latter cases, if we have an opportunity of watching the case for some time before the indurated ulcer appears, we find hyperæmia of the vulvar mucous membrane, hypertrophy of the connective tissue and epithelial elements, desquamation at various points, and the whole surface presenting a dark, red, angry appearance—a condition ready to burst into a blaze at any one focus.

As a matter of fact, in these cases it is often insufficient to remove merely the epitheliomatous ulcer, for other foci of malignant growth are apt to spring up at various points on the remaining vulvar mucous membrane, and unless watched and rapidly removed, quickly form large cancerous ulcers.

SIR WILLIAM BANKES, in his recent Lettsomian lectures on Cancer of the Breast, says, very truly, that attention might now be diverted from the devising of new operations for mammary cancer, for he believed that in the majority of cases they had reached the limits of real use, and that the whole energies of surgical teachers should be thrown into the propagation of the gospel of early diagnosis. He gives some interesting evidence referring to the transition from chronic interstitial mastitis into cancer, and suggests there is no more difficult case in the range of breast surgery than to know what to do with a breast, obviously the subject of chronic mastitis, in which, among several very hard points, there are one or two which are of such special hardness that it is impossible to tell whether they have degenerated into cancer or not, for in his experience the breast may clear up sometimes from all induration, to the great delight of the patient, except at one spot, and there the cancerous limit has been reached and overpassed. He contends that the mastitis out of which, or in which, carcinoma develops is of one kind, and of one kind only, namely, the chronic interstitial mastitis, which arises spontaneously about the middle period of life, and has nothing to do with any previous inflammatory condition; or, in other words, he would allow that there is a slow, chronic enlargement and thickening of the breast tissue, which precedes and is preparatory to the development of true cancer.

I have already pointed out, in the two cases of uterine cancer which I have just recorded, that the same enlargement and thickening of the wall of the womb was found antecedent to the breaking out of the cancerous focus.

The microscope may give us but little help here, for sections made through an organ thus thickened and enlarged would give no evidence of cancer, and it is only at the focus, where active malignant degeneration had been recognised by the naked eye, that sections would reveal under the microscope the true nature of the disease.

These changes are not to be confounded with the zone of round-celled infiltration which is found in all actively growing cancers at the margin of the tumour, where growth is most intense.

In the transactions of the Pathological Society of London, there is a very interesting paper by Mr. GEORGE F. BEADLES, which has not been accorded the prominence which it deserves. It is on certain histological changes found in association with glandular carcinoma.

He came to the conclusion that breasts in which such tumours are found are never in what may be called a normal state. It is often possible to make out with the finger small, hard nodules, situated at a distance from the tumour, and having no apparent connection with it. Sometimes, however, only slight thickening can be felt in some parts of the breast. The acini show proliferative and other changes in the epithelium, and there are to be noticed also changes in the stroma, which comes to resemble that seen in some rapidly-growing scirrhus tumours, in which connective tissue cells, with their elongated nuclei, run parallel around the acini, having between them what appear to be small uniform cells with round nuclei.

The changes are both of the nature of chronic interstitial mastitis, and in the case especially of the thickenings and small nodules, of the nature of a condition intermediate between simple adenoma and carcinoma, extremely suggestive of commencing malignant disease.

Mr. BEADLES is of opinion that these changes in the apparently sound breast tissues are not produced by infection from the existing carcinoma, but are most likely due to the same causes which started the tumour. Clinically, and quite apart from all microscopical examination, this is the opinion which Sir WILLIAM BANKES had always held. In plain language it meant that there is a pre-cancerous state of the whole breast, which, however, only blazes up into full-grown cancer at one or two points. It was this view which made him utterly disbelieve in the removal of the tumour alone, and which prompted him many years ago to press vigorously upon the attention of the medical profession the advisability of free removal of the entire breast, and with that the clearing out of the axilla.

II.—CURABILITY.

Is cancer curable? Or, perhaps, I should rather have said, is malignant disease ever arrested in its downward progress, apart from the use of the knife?

Hitherto, I fear physicians and surgeons have found the disease more interesting in the post-mortem room than in the ward, and have unconsciously felt that the case was, from the first, less in their domain than in that of the undertaker.

The only really hopeful man was the quack or cancer-curer, and he, with a confidence born of ignorance, and a brazen effrontery which ANANIAS might have envied, regarded his patient much in the same light as a late President of the Vaal River Colony regarded the gold workers of the Rand.

Of late years a more favourable view has begun to dawn upon us, and workers in the field of surgery have begun to record cases of apparent spontaneous cure and methods which may be trusted for obtaining this desirable result.

To-night I purpose to bring before you cases in which nature unaided has effected a cure, and in the second place, methods which have more or less secured the confidence of scientific men—I mean that they have either arrested or caused retrograde changes in the pathological progress of this dread disease.

Mr. PEARCE GOULD, in the May number of the *Clinical Journal*, writes as follows:—

“The progress in cancer of the breast is generally in a downward direction, from bad to worse, till death comes as a merciful deliverance from the long drawn-out agony—I want this evening to look at quite another aspect of the disease, and to lay before you evidence of repair in cancer.

The cases I shall now show you will convince the most sceptical among you that we are justified in speaking of repair in cancer, even in these advanced stages.

I venture to think that my demonstration will not only throw light upon the nature of cancer, but will justify and even compel a belief in the possibility of the cure of cancer, and give us an indication of the direction in which the cure is to be sought.

In the natural history of cancer, there is much to depress and discourage us.

It is a welcome change to study the one bright spot in the otherwise dark picture, and to get from this study inspiration and hope that even for cancer our science and art will be able to find a preventative or a remedy.

The evidence of repair that I show you to-day is threefold:—

- (1) The epitheliation or cicatrization of cancerous ulcers.
- (2) The disappearance of small nodules of secondary cancer: and
- (3) The total disappearance of extensive masses of cancer.”

Mr. GOULD illustrated his first point by showing cases of breast cancer in which the malignant ulcer showed a white line of healing, which gradually advanced over the cancerous sore, just as healing occurs over a simple ulcer until the whole was covered over by a scar indistinguishable to the naked eye from the ordinary scar of a wound or common ulcer.

His second point was illustrated by the shrinking and disappearance of malignant nodules, without any interference on the part of the surgeon.

Under his third heading, namely, total disappearance of extensive malignant growths, he notes that this may be either “spontaneous,” or follow upon treatment.

An example of the first variety is given as follows:—“A woman was admitted with advanced recurring malignant disease of the right breast, secondary deposits in the left breast, and the usual evidence of carcinoma of

the right lung. The neck of her right femur underwent spontaneous fracture in such a way as to make it reasonable to suppose that there was a secondary malignant growth there also. Thus she had all the evidences of advanced and widespread malignant disease.

Without any special treatment that patient, while in the cancer ward, got perfectly well. All the nodules about the scar on the right side (where operations had been performed before she came here), all the nodules in the left breast, and all the signs of malignant disease in the lung disappeared. The fragments of her right femur united firmly, and though, it is true, there was some shortening of the limb, still the leg became strong and useful.

A few months ago I saw her, and she was walking with a limp, but otherwise was quite well; yet this same woman for some weeks had been expecting death daily from cancer. That is an old story, and I refer to it again especially because it was a spontaneous recovery. No operation was performed here—nothing but careful nursing of the patient—to relieve, if possible, the agonies of what appeared to be her last days. Nevertheless from the very gate of death, so to speak, that woman returned to health; suddenly she began to mend, and recovered." This case is fully recorded in the Clinical Society's Transactions, vol. xxx., p. 205, and vol. xxxii., p. 272.

Under the head of spontaneous disappearance of malignant growth, the following case, which occurred in New Boynton Ward, will be of interest:—Mrs. EMMA BALL, aged 45, mother of one child (born nineteen years ago), was sent to St. Mary's by Dr. BENSON, of Maid. Vale. Two months ago she noticed that she was getting bigger, and consulted her doctor, who sent her into the hospital for abdominal tumour. Her periods had been regular all her life till last year, when she stopped for six months, and then this year, when they had ceased for six months till a fortnight ago, when she had a period lasting a week.

On abdominal examination, the abdomen was found to be distended and globular, but not very tense. A thrill could be felt through the whole tumour, but more easily in some directions than in others: there was more resistance on the right side than on the left. There was dullness on percussion all over the central part of the abdomen, but there was resonance in the flanks, and for two finger-breadths above the umbilicus in the middle line.

On abdominal examination the vagina was found much shortened, and the lateral and posterior fornices much diminished in size, but not indurated. The cervix looked downward and was fixed, also the uterus, by induration, which was felt chiefly on the left side. The body of the uterus did not seem to be enlarged. As the abdomen was clearly enlarging, it was decided to make an exploratory opening, and this was done on December 12th.

On incising the peritoneum, about 20 pints of ascitic fluid escaped; then, on exploration of the peritoneal cavity, it was found that the parietal and visceral peritoneum were studded with a papillomatous growth, looking like tubercles. No tumour was to be found, nor

any enlargement of the pelvic organs. A small piece of peritoneum, studded with the new growth, was removed for microscopical examination. This was found by Mr. PLIMMER to present all the appearances of a myxo-sarcomatous growth of a very malignant type.

The patient soon recovered from the exploration, and for a time seemed to be doing well. In the first week of January, however, the patient began to fail, and some fluid to reaccumulate in the abdomen; on January 5th fecal vomiting started, and the patient died four days later with signs of intestinal obstruction.

Post-mortem.—Abdomen distended with a straw-coloured fluid; there was considerable tension.

The whole abdominal viscera were densely matted together by old peritoneal adhesions; the mesentery was contracted up to such an extent that the small intestines and transverse colon were drawn up into a firm, immobile mass against the posterior abdominal wall, occupying at a rough estimate not more than a third of the bulk of the normal intestines.

Two coils of small intestine were very firmly adherent to the parietal peritoneum in the region of the umbilicus. There was, besides the old adhesions, a good deal of recent lymph, which extended in long strands, interlacing like a spider's web, from the contracted mass of intestines to the anterior abdominal wall. These strands were in some places six inches in length, which pointed to the fact that there was a similar thickness of fluid between the anterior abdominal wall and the intestines (except where the two coils were adherent).

The peritoneal cavity, before the opening of the intestines, smelt very offensively of sulphuretted hydrogen. There was no actual pus, and no sign of new growth in the peritoneal cavity. The peritoneum, though thickened, was quite smooth. The ascending and descending colon and sigmoid flexure lay free behind the peritoneum; the peritoneum seemed to have contracted so that it no longer formed any investment for the large intestine. Except anteriorly, therefore, the large gut was not distorted. The appendices epiploicæ were involved. They were contracted into hard round masses of fat, non-pedunculated, ranging in size from a pea to a filbert. On section, they seemed to consist of firm, fibrous, yellow fat; the fat throughout the body was of a bright orange colour.

The retro-peritoneal fat was firm, dense, and fibrous. Nothing abnormal in the intestines; stomach greatly constricted and distorted; capacity about six ounces.

Genitalia.—Broad ligament thickened and densely adherent, so that DOUGLAS' and the vesico-vaginal pouch were obliterated. Fimbriae undemonstrable.

Ovaries.—Normal in size, were very firm, and consisted apparently of dense fibrous tissue.

Uterus.—Small, extremely hard. Cervix showed old bifid lateral laceration. Endometrium normal.

Tubes.—Appeared to be imperforate throughout, from extreme contraction and constriction of salpingeal peritoneum.

Liver.—8 pounds. Very pale, and nutmeg with excess of fatty change. Firmly adherent to colon, stomach and anterior abdominal wall. The portal vein was in a dense distorted mass of thickened peritoneum: it was, however, pervious, but tortuous and constricted to the size of the proverbial "goose quill."

Spleen.—3 ozs. Firm and dark. Dense perisplenitis.

Kidneys.—R. $4\frac{1}{2}$ ozs. L. $4\frac{1}{2}$ ozs. Capsules normal, only showing engorgement.

Pancreas.—Somewhat shrunken and fibrous. Good deal of yellow fat around.

Heart.—8 ozs. Muscle pale and soft. Otherwise normal.

Pleura and Pericardium.—Normal.

Lungs.—R. 17 ounces. L. 16 ozs. Normal, merely engorged.

Cerebro-spinal System.—No examination allowed.

This case is of much interest, as examination of the tissue removed at the exploratory operation showed clearly that diffuse myxo-sarcomatous degeneration was going on, and yet at the *post-mortem* examination no evidence of malignant disease could at first be found, and it was only on making sections of the shrunken "appendices epiploicæ" that it was found that these small growths had become converted into sarcomatous masses. From all other parts of the peritoneal cavity the malignant degeneration had disappeared.

In the March number of the *Bristol Medico-Chirurgical Journal* for this year, Dr. MUNRO SMITH records the following case of the spontaneous disappearance of a sarcomatous tumour:—

W. R. C., aged 52, gardener, was admitted to the Bristol Royal Infirmary, under the care of Dr. JAMES SWAIN, in March 1894. He had, since the previous November, noticed a swelling at the angle of the jaw, on the right side, which had slowly increased in size, and had caused irritation, but no pain. The man was in apparently good health, and there was no history of syphilis, tubercle, or preceding lesion of the skin of the part affected.

Dr. SWAIN removed the growth, which was found to be encapsuled, but firmly attached to the masseter and other structures, and very vascular. It dipped under the jaw, and was adherent to the sub-maxillary gland. It measured about two inches by one inch in diameter. A small gland was removed with it.

On examination it was found to consist of a soft, globular nucleus, surrounded by an envelope of yellowish-grey material, and outside this was a third zone, darker and softer. Microscopically small round cells were the chief constituent of all three zones. There was very little stroma.

The wound healed, and the man went out and resumed his work, but was re-admitted to the infirmary under my care (Dr. SWAIN being away at the time) on August 10th, 1895, with a smooth, firm, lobulated swelling involving the parts behind and beneath the angle of the jaw (right side), and extending downwards anterior to the sterno-mastoid.

There was some loss of flesh, and slight pain. The tumour was increasing with some rapidity. He had no other swellings. It was considered that this was a recurrence of the original tumour, and an operation was decided upon.

On August 13th I made a long incision and exposed the superficial part of the growth. It was encapsuled and smooth, but adherent to the surrounding tissues, and extended deeply into the neck, being firmly adherent to the prevertebral muscles, &c. There was very free hæmorrhage, which, owing to the depth of the wound, was restrained with great difficulty; and it was found quite impossible to remove the tumour. The wound was plugged with gauze. In the evening more bleeding occurred, and artery forceps had to be left on several bleeding points. There was no chance, therefore, of healing by first intention, but the wound slowly granulated up, and in three weeks' time was almost healed.

The patient left the infirmary and went to stay with friends at Torquay for two or three weeks. On his return I was surprised to find a very marked diminution in the size of the tumour, and the man was putting on flesh. He went away again to the Isle of Wight and then to Wolverhampton, returning to Bristol at the end of December, four-and-a-half months after the operation. He then appeared perfectly well, and there was no trace whatever of the swelling. He had, however, a small hard gland on the opposite side of the neck.

In February 1896 he again attended at the infirmary with enlargement of his right tonsil. A circular ulcer gradually formed, with hard, everted edges, involving the anterior pillar of the fauces and tonsils. Whilst he was attending for the throat, he was put upon some full doses of iodide of potassium, but he rapidly emaciated, his tongue and breath became very foul, and his general appearance was markedly cachectic. He grew steadily worse, eating and drinking became difficult, and after some weeks I was not surprised to have a message from his wife that he was too ill to attend as an out-patient, and was confined to his house. Nevertheless, without any special treatment beyond rest in bed and antiseptic washes, this malignant-looking ulcer gradually, but completely healed, and the emaciation and cachexia began to improve rapidly.

In July 1896 the patient came to the Redland Dispensary and attended under Mr. J. GRIFFITHS (who kindly furnished me with notes) with a round lump just beneath his left ear, firm, pigmented, and slowly increasing in size. He also complained of swelling of the abdomen, and on examination it was found that the abdominal walls were tense from the presence of ascites. There was much œdema of the lower limbs and scrotum. There was no albumen or other abnormal constituent in the urine, no jaundice, no hepatic enlargement, and no cardiac defect could be discovered. Besides the growth under the left ear, there were two or three small subcutaneous nodules on the arms and legs. The diagnosis of malignant growth was made, and the case was considered hopeless. But in about seven weeks' time the dropsy began to disappear, and gradually left an apparently healthy abdomen.

Meanwhile the lump on the left side of the neck began to increase, and in December 1896 he was again admitted to the Infirmary under my care. This lump was the size of a small orange, fungating, soft, and dark reddish-brown in colour. It frequently bled from the foul cauliflower-like excrescences with which it was covered. As the patient was becoming very weak from loss of blood, I removed this large superficial tumour. Its base was indurated, involving the deep structures of the neck, and no attempt was made to remove this.

Some attempt at healing took place, and the man left the infirmary improved in health. He had, however, in the groins, and on the forearms and legs, several deeply pigmented lumps, presenting all the appearances of sarcomatous deposits. Microscopical examination of the removed tumour showed small round cells, with numerous blood-vessels and very little stroma.

These subcutaneous nodules rapidly developed and became very numerous. He died at his house on April 6th, 1897, from exhaustion. He had twenty-two of these pigmented tumours on the right leg alone. Unfortunately, no *post-mortem* examination was made.

It is impossible to review this case without astonishment. The primary lesion appears to have been a lympho-sarcoma at the angle of the jaw. This was extirpated: it recurred, and after an unsuccessful attempt at removal of the recurrent growth, the latter spontaneously disappeared. The ulcer on the tonsil and palate, and the ascites, seemed clearly due to malignant disease; yet recovery from both took place. The microscopic examination, the clinical features, and the termination by numerous pigmented tumours, &c., causing death from exhaustion—all this is strong evidence in favour of the whole cycle of events being malignant.

III.—TREATMENT.

While thus far we have been dealing with the question of origin in cancerous growth, and have been recognising that Nature occasionally (though only occasionally) gives us a text for a sermon on the spontaneous cure of malignant formations, we have not as yet touched upon the question of treatment.

Whatever views may be held regarding the mode of spread and the infective nature of a primary cancer, there can be very little doubt that in the vast majority of cases, cancer does begin as a local process, and at this stage is capable of complete cure by the surgeon's knife.

I have at this moment under "constant" observation three cases where well-recognised cancer has been removed, and the patients are still free from any return of the disease.

Mrs. M., aged 55, had her breast removed by Sir WILLIAM SAVORY, 13 years ago, for carcinoma of the mamma, and the microscope showed distinctly that the mass was a pure scirrhus.

Mrs. L., aged 58, underwent the same operation nine years ago, and is still perfectly free from disease; and

Mrs. X., from whom I extirpated her uterus with well marked cancer of the cervix, some five years ago, enjoys to-day the most perfect health.

Every year lists of cases are published, in which patients have been watched eight and more years, since undergoing an operation for cancer, and are still perfectly free from the disease.

As regards treatment, then, we are all at one in believing that, when cancer is limited in extent and can be completely removed with the whole of the organ affected, the surgeon's knife, and the surgeon's knife only, is the treatment available.

As regards the other question, whether treatment by the knife is advisable or justifiable in cases where pieces of neighbouring infected tissue are left behind, every case must be judged on its own merits, and by the special circumstances of each case.

Occasionally for the relief of mental anguish, occasionally for the removal of foul discharges, occasionally for the cure of severe hæmorrhages, these imperfect operations may be advocated; but I would ask you to consider the following questions:—

Does not imperfect operation (1) hasten the spread of the disease? (2) Increase the rapidity of growth of the disease? And (3) shorten the patient's life?

BLAND SUTTON, in a recent number of the *Clinical Journal*, calls attention to the condition of the lymphatic and other vessels in the neighbourhood of a cancerous focus, and reminds us that the idea that cancer is spread by the aid of the lymphatic stream alone is only a half truth. As a matter of fact the small veins and capillaries in the neighbourhood of a growing cancer are largely thrombosed with what must be regarded as cancer particles.

In an operation of partial removal, these vessels are of course cut across, and the whole neighbourhood of the wound is deluged with infective material, while at the same time the necessary surgical manipulations carried out must perforce drive on much of this material into the general blood stream and lymphatic stream, thus leading not only to rapid soiling of the neighbouring tissues, but also to pouring of much infective material into the general circulation.

One would naturally expect, as a consequence of this, that secondary deposits in distant organs would be more rapidly set up, and, as a matter of fact, our clinical experience often teaches us the truth of this theory.

Turning away from the surgical aspect of treatment (radical or palliative), we now may consider whether any treatment, medical or otherwise, holds out any hope of relief or cure. Under this heading I do not intend to dogmatise, for I have no data on which to take such a stand; I only intend to bring under your notice to-night some suggestive cases and some lines of treatment, which seem to hold out some prospects of success.

There is an old treatment which was suggested years ago, if I remember right, by Mr. CLAY, in which the virtues of China Turpentine were largely vaunted by this surgeon.

I note well that no reliance is placed on this drug, and that repeated trials have led to the belief that it is

absolutely of no value. Now I wish to-night to mention to you a case which has interested me very much, and which has set me thinking again whether in some cases there may not be a virtue in this drug.

I may say that, in years past, I have tried pure preparations of Olan Turpentine, both internally and locally applied, in cases of cervical cancer. In cases, in the New Boynton Ward, I have given the drug freely by the mouth, and at the same time I have applied it on tampons of wool against the cancerous ulcer; but beyond some slight improvement in the character of the discharge and the appearance of the ulcer, I cannot say that I have seen any real improvement.

SOME DIAGNOSTIC DETAILS.*

By WM. EDGAR DARNALL, A.B., M.D.,

Visiting Physician to the Atlantic City Hospital; Fellow of the American Academy of Medicine, etc., etc.

THERE are many things in the art of diagnosis not to be found in text-book or journal literature, nor, indeed, anywhere else, save by an earnest and observant study of the open book of Nature itself. Skilful diagnosis does not entirely consist of a dulness here, a tympany there, a thrill, a murmur, a classic group of symptoms or scientific facts as put down in some text-book. It is a notorious fact that few cases follow out in detail the text-book description of the disease. What is it, then, that makes the reputation of one physician as a skilful diagnostician, and of another as a bungler? The older physician with a wealth of experience has so trained his perceptive faculties that he grasps and groups the essential details of a case almost at a glance, discarding the unimportant things, some of which are often much magnified by the patient. In this respect he has the advantage of the young practitioner, who is prone to lay too great stress on whatever symptom may be most exaggerated by the sick man. The real value of symptoms with reference to the general principles of physiology, histology and pathology must be correctly estimated by him who would excel in diagnosis. The perceptive qualities of the mind must also be highly developed, and supported by a habit of the closest observation.

Perception may be defined as that faculty of the mind by which we take instant cognizance of an object or a truth without being able to analyse or communicate the mental process by which we arrive at our knowledge; nor does ignorance of the process necessarily affect the correctness of the conclusion. Fortunate is the physician who naturally possesses this faculty in marked degree. The sense organs of such men are exceedingly keen, and their mental processes rapid. They go straight to the point, recognizing the disease at times instantly, and with almost unerring certainty. It is this faculty, coupled with the habit of unconsciously observing details—the most trivial modification of appearance, complexion, voice, manner, gait, expression, muscular control and hundreds of other minutiae—that gives to some of our greatest men their seemingly wonderful intuitiveness

in diagnosis. Of such physicians it may be said, as of poets, "They are born, not made."

In estimating the true value of symptoms with reference to disease, the mind must be able to sift the wheat from the chaff; to get at the significant things and draw from them correct inferences based on a thorough knowledge of the scientific facts of medicine. Very necessary is that particular quality of a well-trained mind known as the synthetic or syllogistic power, which grasps the salient points of any question, groups them in a logical manner, and reasons from them to a correct and positive conclusion. The true physician should be above the plane of narrow reasoning and prejudice. He must be able to view a question from many standpoints abstractly, and have a mind so balanced by an innate sense of justice that each shall receive its due weight in formulating a conclusion.

No physician can see too much, nor observe too carefully. No detail is too trivial for his mental note-book. The minor things not in books may often help him. The expression of the face and the quick glance of the eye often speak volumes, and human nature itself should be thoroughly studied to correctly understand them. Who that has seen the cowering look of the opium fiend, or the cunning craftiness and deceit of the eye of the morphinomaniac, fearful of detection in his vice, can forget it? The bloated face and red eye of the alcoholic is practically pathognomonic. The contorted face wrinkled with sharp pains; the pallid, worn and weary expression of chronic pain, suffering written in every lineament of the face; the careworn, anxious look of the mother, striving daily, bearing bravely, perchance uncomplainingly, the burden of domestic duty, faithful to her spouse and her family in spite of ovarian and uterine troubles, that are sapping her health and wrecking her nervous system; or the dusky pallor, colorless lips, pinched nose, appealing eyes, distressed and pitiable in their very glance of anxiety, as if they foreshadowed the impending calamity of unrelieved shock or dire disease—all speak with no uncertain voice in determining the conditions confronting us. The discontented and pouting expression of the spoiled hysteric, selfish domineering, exacting sympathy from all around her, and yet unsatisfied with whatever may be done for her; the wild eye of mania and fever's delirium; the silly face of the imbecile; the exalted or depressed expression of various forms of insanity; the dull, stolid, square-jawed and empty face of the adenoid child, all mean much in diagnosis; while pitiable is the wrinkled, weakened, and very knowing little old-woman face of the helpless, speechless infant with marasmus. This can hardly fail to impress itself on the dullest observer when first seen.

The eye alone, dilating with pleasure or contracted with pain, its brightness or listlessness varying in all degrees of well-being and sickness, indicates often the slightest change from a feeling of buoyancy and health to that of languor and malaise. Its lack of lustre is often the first thing noticed in what the watchful mother terms "droopiness" in her child.

Together with the bright eye, red lips, and flush of fever, may be seen also an inco-ordination of groups of muscles. The actions are quick, often jerky, the small muscles of the face twitch, the lips tremble, the voice loses its firmness and trembles as if under strong and suppressed emotion. Loss of control over the voice tone is noticed in many conditions, as in the, at times, abnormally loud laugh and spasmodic speech of the hysteric, the jerky, nervous voice, the aphonia of laryngitis, or the husky voice, the hoarse voice, the voice of hypertrophic rhinitis, which has no carrying power. The tone-expression of the voice may distinguish the acute cry of pain and the groan of suffering from content and

* Reproduced from *Medical News* by request.

satisfaction. This tone language becomes often the only means of determining in the infant whether its cry is of anger, gripping pain, or the fretting or general discomfort. The complexion should not go unnoticed; compare the transparent skin, beautiful flush of color and bright eye of healthful youth with that dull, deadened eye, yellowed sclera and muddy skin, in which each feature takes on a coarser and rougher appearance—the bilious picture of a circulation full of toxins that should have been excreted by lagging organs. The whole face expresses misery and dejection. There is the bumpy acne face, suggestive of genito-urinary disturbance; the tuberculous, waxy, white skin, with hollow, glittering eyes and hectic red; also the roseate nose and florid plethora of gouty grumblers, fit subjects for cerebral hemorrhage; the soft, pesty, white skin of the victim of BRIGT'S disease, and that the peculiar lifeless white of the uric-acid diathesis, so well associated with the refined and physically inactive elderly ladies of the community who pride themselves on their delicate sensibilities and to whom the slightest hardship is a horror. Nor can one forget the bluish lip and peculiar bronzed appearance of the cachectic complexion of malignant disease, as if a transparent skin had been spread over brown paper. This complexion has been considered almost pathognomonic by some physicians.

Such things as the breathing and position of a patient may be indicative. The child with high fever breathes very rapidly. The respiration is also accelerated in the case of an adult. Is the breathing superficial, showing deficient lung space or abdominal pain; caddy, with intercostal neuralgia, or indicating endothelial involvement of pleura or peritoneum, or acutely-congested lung tissue; or is it the distressed breathing of the asthmatic, with its long, whistling and forced expiration? The blue-lipped laborer for breath in failing cardiac compensation; the unconscious patient pallid with alarming hemorrhage, sighing and sighing the life away; the CHEYNE-STOKES type and the stertor of cerebral involvement are impressive danger-signals to the close observer of disease.

Position is significant, especially with infants. Restlessness, constant shifting of position, and tossing about shows at once an excited condition of nerve centres. It may be from fever, soreness and pain, a limiting of breathing space in the upper respiratory tract, indigestion, or nervous states. A patient lying on the back, with legs drawn up, suggests pelvic or abdominal pain, or inflammatory conditions which may be of a very varied nature. The sufferer from cholera morbus is frequently found on the side, with thigh and legs flexed, usually unquiet and writhing in pain at intervals. The position taken by those with many chronic troubles is often of the greatest importance in formulating a diagnosis. The space, however, devoted to a short paper does not permit the enumeration of more than a few of the multitudinous things that are seen every day by the observing physician as he makes his rounds from house to house. He often gathers valuable information from the bearing, gait, and even the dress of his patient.

Just a word may be said as to odors. In many diseases certain odors are prominent, as in typhoid fever, grip, tuberculosis, sepsis, decomposition, and other conditions in which elevated temperature plays a part. There are those who have gone so far as to state their ability to diagnose variola, typhoid, etc., by their odor alone. The diarrhoea odor, the urinary smell, etc., are significant, while some persons on entering a room where there are several women can single out by the sense of smell those who are menstruating or suffering from leucorrhoea.

A very valuable thing in treatment, as well as in diagnosis, is a correct appreciation of temperament. Temperaments may be divided into four general classes, viz.: (a) the nervous; (b) the sanguine; (c) the bilious; and (d) the phlegmatic. Individuals not conforming exactly to these classes are invariably found to be modi-

fications of them, or combinations of different classes, as neuro-sanguine, neuro-bilious, sanguino-phlegmatic, or bilious-phlegmatic.

The typically nervous temperament is of brunette description and slender build. Persons of this type are quick-thinking, quick-acting; every movement of the body is nimble and alert. They are always active, both mentally and physically, and keyed to such tension that everything concerning them, joy and sorrow, pleasure or pain, is acute and intense. Highly imaginative, they are often worrying over the things that never happen, and many of this type are burning their supply of life's fuel constantly at a white heat as long as it lasts.

The sanguine temperament, usually of healthy organization, is possessed of much endurance, but needs also much rest and sleep. As a rule, individuals of this type have sandy hair, clear skin, but are sometimes portly in build. This type, perhaps, is every bit as quick and active as the nervous in many ways, yet takes life more calmly and just as it comes. It is not so intense. The sanguine man is not an extremist. He is an optimist, seeing the good in things, looking on the brighter side of questions depressing to others, philosophizing over the results and quietly awaiting their materialization. He has a keen appreciation of the ridiculous, enjoys life in an equable way, and does not let its cares and trials weigh so much on his spirits as to depress him and affect his health.

The bilious type, black-haired, dark-skinned, angular, rugged, strong in principle and decision of character, often "grand, gloomy and peculiar," is subject to fits of the deepest despondency and melancholia. These people are matter-of-fact, take life very seriously and shoulder as a duty, with the heroism of martyrs, weighty responsibilities, from which more timid characters shrink. Some of the world's greatest leaders are numbered among this class, a typical example of which was ABRAHAM LINCOLN.

Every one recognises in the thick-set, broad-shouldered, short-necked, broad-jawed and ruddy man all that is expressed in the word phlegmatic. This type is slow to think, slow to act, slow in his movements, but dogged in determination, often what is known as "pig-headed" and obstinate. Every question must filter through his mind, drop by drop, until the conclusion is reached; while the opposite and more fickle, nervous type has seen through it at a glance and perhaps changed his mind two or three times in the meanwhile. The phlegmatic man enjoys none of that keenness and intensity of feeling experienced by the nervous or sanguine type, nor do the pleasures of intellectual pursuits and high culture appeal to him. The coarser fibre of his make-up demands rather the satisfaction of physical enjoyment. His tastes tend toward the sensual, and he is often lazy, dull and heavy.

A physician may so familiarise himself with individual physical types and combinations of temperament, when once his attention has been given to the matter, that at a glance he can tell from the color of the hair, the texture of the skin, the firmness of the flesh, appearance of mucous membranes, expression, bearing, general build, and similar indications, just what allowance should be made for sensitiveness and reactionary power. Such considerations, no doubt, influence every practising physician more or less, perhaps unconsciously, in many cases, in making up his mind with regard to the general condition of his patient.

I have not sought to exhaust such a broad subject in a short paper, but only to touch on a few things here and there that might suggest others met with in your various experiences, and to emphasise the importance of noting every detail, even the smallest and most trivial, in the matter of diagnosis. Such details often aid materially the grouping of things in a general analysis of the patient's tendencies and susceptibilities, and will well repay the close and careful observation given to their study.

A MIRROR OF PRACTICE.

A REMARKABLE CASE OF TETANUS SUCCESSFULLY TREATED.

UNDER CARE OF H. M. MASINA, L.M.S., BOM., F.R.C.S., ENG.

Late Tutor in Surgery, Grant Medical College; Honorary Surgeon to Sir J. J. Hospital.

Why admitted:—FARID ISMAIL MAHOMED, aged 35, a dyer by occupation, was brought to the J. J. Hospital, December 30th, 1900, suffering from complete loss of the use of his limbs, difficulty in opening mouth, hard breathing and high fever.

He was ordered pot. bromidi et chloral hydras, 20 grs. each at a time every four hours, milk for his diet and warm clothing.

The patient, a full grown, well developed adult, lay at full length, completely helpless, on his bed on the floor of the room. He bore an extremely anxious look; his eyes fixed and vacant; angles of his mouth drawn out, and face pinched; his neck stiff, the sterno-mastoid standing out cord-like. The abdominal muscles were very much contracted, hampering breathing. The muscles of the extremities and those of the back were in extreme rigid condition, so that the man lay helpless like a piece of plank flat on the ground, deprived of every power of locomotion. He was hawking constantly in his effort to throw up very sticky phlegm—purulent and abundant—embarrassed by dyspnoea. He was sweating profusely in the face, chest, abdomen and back. His pulse quick, full and hard—regular; respiration hurried, shallow and irregular. He had extensive bronchitis and patches of pneumonia of the left lung at the base and back. His temperature 103° in the morning, rising to 104° in the evening. Bowels constipative, and passed no stool for last seven days. Urination difficult—urine scanty, high-colored, and of pretty high specific gravity.

The patient had lockjaw from the very beginning, although he could open his mouth to a slight extent. He could not take in solid food, but there was no difficulty in swallowing fluids. There was no spasm of the glottis on attempt to swallow or sight of water. His throat was intense. He could feebly catch hold of things; and in his attempt to reach the water jug close by, he would rotate on his buttock like the hand of a watch. Any such attempt on the part of the patient to move, or a pinch or a pull from some other person, would induce spasms of convulsion lasting for about a minute upwards. Spontaneous spasms would occur from time to time quite on a sudden.

*He could speak incoherently, and gave the following history:—

Personal history.—He, a homeless widower, came down to Bombay, 16 years back, to seek employment as a dyer. Here in Bombay he led a strict healthy life, with occasional attacks of rheumatism. He gave no other or any history directly bearing upon his present complaint. He gave no history of injury, nor could there be found any on his person showing the same.

Origin, duration and progress of the present complaint.—One very cold night, about a fortnight previous to his admission into the hospital, he took as usual a cold bath in the tap, felt very comfortable after a whole day's work, took no trouble to change his *dhoties*, took no food, but went down to sleep with his wet cloth on, on the exposed verandah of the factory where he worked and lived. He slept, and in the morning when he awoke he found that he could not move, his limbs as if tied down, his mouth shut up. Being helpless, he lay there for assistance, when his fellow-workers came and fed him with milk, forcibly opening his mouth sufficient to pour in the liquid. He lay there in this condition, having nobody to look after, nothing to cover him with. Thus for twelve days he lay there in a semi-conscious state, having had low muttering delirium and high fever, as he could recollect. He did not receive any injury whatever during the time he lay sick.

No mark of injury could be detected on careful and repeated examination.

Diagnosis arrived at was tetanus, distinguished from

I. Cerebro-spinal fever.—By presence of trismus from the very beginning, besides constant rigidity of the muscles—no marked cerebral symptoms, e.g., headache, nor any irruption on the body. The fever was due to pneumonia.

II. Strychnine poisoning.—By absence of any history pointing to it. No complete relaxation of the muscles.

III. Hydrophobia.—By no history of dog-bite; no spasms of the glottis on sight of water or on attempt to swallow.

IV. Tetany.—By no spasms in the hand or arm well marked. No conical shape of the hand.

V. Muscular Rheumatism.—By presence of trismus.

VI. Hysteria.—By absence* of marked opisthotonus, presence of trismus with rigidity of cervical muscles. No other manifestations of hysteria.

Result of treatment.—The patient made an eventful recovery under pot. bromidi and chloral hydras with turpentine stoup to cheat over the affected part.

He was discharged cured 2nd February, seven weeks after the attack.

Remark.—Such idiopathic cases are rare.

CASE OF OPHTHALMIA NEONATORUM TREATED BY THE DOUCHE.*

By E. E. HOLZ, M.D.,
Portland, Me., U.S.A.

ON May 22, 1899, Dr. FULLER, of Bath, sent me an infant suffering from ophthalmia neonatorum. Dr. FULLER had been called in consultation to see the baby in Richmond, and found it in such a critical condition that he advised having it taken to me at once. The baby

*Reprinted from the Journal of the American Medical Association by request.

was between two and three weeks old, and the disease had developed into a critical condition. There was a profuse purulent discharge issuing from both eyes, and so much chemosis and swelling of the lids that it was difficult to make a satisfactory inspection of the cornea of either eye; it was finally determined that the cornea was involved and about to break down in each eye.

The mother was making a supreme effort to save the sight of the child, having recently left her bed to make the journey to Portland. She was delicate, exceedingly nervous, but intelligent and anxious to do anything to save some sight for the child. As she was nursing the child, I assured her that it was absolutely essential for her to compose herself in order to give her baby the best chance for recovery. This she did in a heroic manner; cow's milk was given in addition to that of the mother's. On carefully considering the case, it did not seem to me that continuing the ordinary methods of treating eyes in such cases would preserve much sight for the child; but it occurred to me that if the eyes could be thoroughly douched and all the secretions from the conjunctiva kept constantly washed away, there would be some chance of saving sight. Acting on this suggestion, I took a DAVIDSON syringe, and with the No. 1 point I pressed it between the lids at the outer canthus and threw a stream of tepid water containing about 1 per cent. of boric acid until I had used a quart or more for each eye. The point of the syringe was always directed away from the eyeball, and was gradually worked along the whole length of the retrotarsal fold, so that the conjunctival sac was thoroughly washed out. The douching of the eye was repeated every half hour, night and day, for the first twenty-four hours; then less frequently, and at the end of the fifth day the baby was opening its eyes and looking about the room. This was certainly a revelation to me and the nurses who were familiar with the usual methods of treatment and had witnessed the rapid change.

The cornea cleared, recovery was complete, and the mother went home with all the happiness that could come from such a rapid and unexpected result.

The same method of douching has been carried out in other cases in about the same critical condition with the same happy result.

In the first case cited, a 2 per cent. solution of nitrate of silver was used from the first, and the eyes were cleaned by irrigations, pipettes and absorbent cotton. When the child came under my care the 2 per cent. solution of nitrate of silver was continued daily, care being taken that it did not reach the cornea; cold packs were applied to the lids between the intervals of douching, and the nourishment of the child was given all the attention possible.

All authorities are agreed that cleanliness is of the highest importance, but I fail to find any mention of the douches to accomplish this result. The douching may be carried out by the use of the fountain syringe, but I prefer the syringe like that known as the DAVIDSON, where the force of the stream can be increased or diminished at will. For the purpose of accomplishing that

douching, especially at the beginning of the practice, I have had the Davidson Rubber Company make me a hook-like point which has several openings at its end that may be attached to the syringe and used instead of the No. 1 point that comes with the syringe.

I believe that the douche properly carried out will be as efficient to check the disastrous course of those cases of purulent conjunctivitis which have arrived at the critical condition here described as CREDE'S method is in preventing them from reaching this critical condition.

A CASE OF COMPOUND COMMINUTED FRACTURE OF LEFT LEG: AMPUTATION AND RECOVERY.

By DADABHOY P. PESTONJEE, G.H.M.S.,

Medical Officer, Karimnagar Dispensary, Hyderabad, Deccan.

Juggaloo, aged about 14 years, male, by caste Kunbee, resident of Raipak, a village in Sireilla Taluka, H. H. the Nizam's Dominions, was admitted into the Karimnagar Hospital for severe injury to his left leg, the result of a fall from a tamarind tree.

History.—The patient was brought to the hospital ten days after the accident. The boy was weak and emaciated. As is usual, the village barber was sent for, who applied some bruised leaves, and tied it tightly with bamboo sticks. The consequence was that the whole limb became enormously swollen, with sloughing and ulceration at the seat of injury. The skin over it had become of a mottled and livid hue, loose blisters, containing more or less blood-stained serum, were already formed. The seat of fracture was in the middle third of the leg; both the tibia and fibula were protruding; the line of demarcation was clear at an inch above the seat of fracture. The skin was hot, tongue furred, pulse quick, bowels not moved, and urine was scanty and high coloured.

I obtained the consent of the boy's father to amputate the leg below the knee, after explaining that that was his only chance of life.

Operation.—On the 23rd May 1898, the skin over the part to be amputated was washed with soap and warm water and rendered as thoroughly antiseptic as possible. The ESMARCH'S elastic cord having been applied, the patient was put under chloroform, the leg was amputated in its upper third by circular method. Two flaps containing skin and fat were dissected and held well out of the way, the muscles were divided circularly and the soft parts raised from the bones, and the bones were cleared and sawn. Three silk ligatures were tied, the cord was then removed; the bleeding having stopped, a piece of antiseptic gauze was introduced, and the flaps were appositioned by a few horse-hair sutures, the wound dressed with carbolic oil and iodoform, and a bandage applied.

The dressing was opened for the first time on the third day, when there was not much pus to be seen. From this date the wound was dressed on every alternate day. Plenty of nutritious diet and stimulants with iron and quinine were given. The patient made a rapid progress towards recovery, and was discharged well by the end of the month.

Indian Medical Record.

1st May 1901.

REMARKS ON THE CONCLUSIONS OF THE REPORT OF THE ANÆSTHETICS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

In a paper read before the Society of Anæsthetists recently, details of which appear in the columns of the *British Medical Journal*, Mr. GEORGE EASTES, M.B., F.R.C.S., reviewed at some length the deductions to be drawn from the Report of the Anæsthetics Committee of the British Medical Association. We extract the important remarks from this contribution. Having described the origin, constitution and scope of work of the Committee, Mr. EASTES indicated that, in all, the records of 25,920 cases had been collected and minutely scrutinised. They were divided into two great divisions—the uncomplicated and the complicated. The anæsthetics, chloroform, ether, gas and ether, A. C. E. mixture and mixtures of chloroform and ether were administered in 21,000 cases. Minor complications comprised more than half of the complicated cases, and of the total complications under ether, gas and ether and A. C. E. about two-thirds were minor complications, whereas under chloroform and mixtures of chloroform and ether the complicated cases were more often of a more serious character. Of the cases of danger 153 recovered and 29 died. The proportion of complicated cases of danger under ether, gas and ether, and A. C. E. was, especially under ether alone, very far below the proportion of cases so classified under chloroform and mixtures of chloroform and ether. Of the 29 cases of death, due partly or entirely to the anæsthetic, 26 occurred under the above five, and perhaps the chief lesson taught by the report was that chloroform alone or in combination caused a danger rate sixfold higher than the danger rate produced by ether, and, contrasting chloroform alone with ether, a danger rate more than eight times higher than ether. The danger under anæsthetics was greater in winter than in the rest of the year, and the percentage of complications was greater in males than females, but under gas and ether that percentage was less; yet minor complications were more frequent with males than females, even under ether. The age period, 11 to 15, had the lowest complication rates and danger rates under all anæsthetics taken together: from this age onward there was a steady rise for each decennial period until the age of 50 in the complication rate and until 80 in the danger rate. Under chloroform the percentage of danger cases in the first ten years of age was distinctly higher than in the second and third decennial periods. The danger rate increased quickly, according to the deterioration in health of the patients: but, at the same time, the relative dangers under chloroform and under ether became more equal. There was an "increased liability to the occurrence of complications and dangers in patients suffering from emphysema, shock and collapse, alcoholism, affections of the heart generally, emaciation, empyema, bronchitis, valvular diseases of the

heart and empyema. Further, when complications arose in such cases as shock and collapse, emphysema and alcoholism, they exhibited a markedly increased percentage of cases of danger: while in patients suffering from malignant disease and febrile conditions the complications were unusually free from danger. Lastly, in patients suffering from pyrexia, tuberculosis and pulmonary phthisis (especially the latter), anæsthesia was more than usually free from complications or dangers. The remarkable diminution of the chloroform danger rate in a large number of cases of tuberculosis, and especially in phthisis, deserves attention." Under chloroform the complication rate increased with the longer duration of the administration, but the danger rate was the highest in the early stages of administration: the longer the administration the greater the chance of a minor complication. "Is no instance was the incidence of non-fatal danger noted as occurring after 60 minutes from the commencement of chloroform administration. Briefly, under all the four principal anæsthetics, the onset of dangerous or fatal symptoms occurred, as a rule, in the early stages of anæsthesia; whereas the complications of the later stages of prolonged anæsthesia were generally instances of minor complications or of anxiety, and were very rarely cases of danger, either non-fatal or fatal.

As regarded the operation, the most striking fact was that both the complication and danger rates were determined in larger measure by a surgical factor, such as shock from hæmorrhage, interference with important structures, etc., than by the anæsthetic. The danger rates were high for operations for strangulated hernia, those involving the pleura or lung, excisions of the eyeball, operations on the testicle and kidney, abdominal operations and operations involving the upper air passages. Ovariectomy and hysterectomy together, although showing one of the highest complication rates, were comparatively free from danger. The cases of danger under ether were none for the majority of operations, but the number of cases was limited; but as ether had often been selected for use in conditions of exhaustion and collapse, the danger rate was influenced thereby, explaining the high danger rate in strangulated hernia under ether. Under gas and ether there was an increased danger rate for abdominal and rectal operations, whilst there was no case of danger with most of the major operations under this anæsthetic. The statistics showed that a slow induction of anæsthesia was not necessarily safe. Struggling and rigidity occurred more frequently with ether and A. C. E. cases than in gas and ether or chloroform cases. Excitement was noticed under ether twice as often as under chloroform or gas and ether: secretion of mucus occurred most frequently under gas and ether and ether, least often under chloroform; cough most frequently under ether, less so under gas and ether, rarely under chloroform; lividity oftener under gas and ether, least with chloroform; vomiting was distinctly more common with chloroform than with ether, gas and ether, or A. C. E. In minor complications, difficult breathing, dyspnoea, spasm of glottis were more frequent under ether than under chloroform; but shallow breathing occurred oftener under chloroform; cessation of breathing was observed four times oftener under

chloroform than under ether. Circulatory phenomena occurred more than five times oftener under the "chloroform group" of anæsthetics than under those of the "ether group." Muscular phenomena in the complicated cases were about equal under chloroform and ether. The largest proportion of instances of primary circulatory failure occurred when chloroform alone, or in mixture was employed. Faintness, shock or collapse after operation, were noticed in the proportion of 61 to 41 as between chloroform and ether. In all after-effects the feeble condition of the patient or the gravity of the operation was held to be the chief cause. The sub-committee considered the evidence before it as insufficient to warrant any definite pronouncements as to the relative value of the modes of treatment of complications. The fact was emphasized that the danger to life under the use of chloroform was greater than when other anæsthetics were employed. When anæsthesia was incomplete, complications were more frequent than when it was unquestionably complete: it was important, therefore, that complete anæsthesia should be established before surgical procedures were commenced, and the requisite degree of anæsthesia maintained during the remaining stages of the operation. The report concludes with 35 conclusions come to by the Committee.

In the same journal Dr. AUGUSTUS D. WALLER, M.D., F.R.S., in a criticism of this report, inquires what the ordinary administrator of anæsthetics learned from the inquiry: and he very pithily sums up the substance of the thirty-five conclusions. Chloroform is more dangerous than ether, but as regards methods of administration, rates of use, methods of restoration, clinical evidence had not warranted any conclusion. Special circumstances might render the use of some anæsthetic, or combination of anæsthetics, both safer and easier than that of ether or nitrous oxide: but no indications were derivable as to the nature of the anæsthetic, or combination of anæsthetics, that it might be advisable to employ, with the exception of the A.C.E. mixture, which held an intermediate position between chloroform and ether, but was more dangerous to males than females. The most important conclusion was that by far the most important factor in the safe administration of anæsthetics was the experience of the administrator, and that in many cases the anæsthetization was of such importance and gravity that it was absolutely essential that an anæsthetist of large experience should conduct the administration. Dr. WALLER animadverted on the conclusion as to the relative safety of the chloroform and ether groups: the former, as we have seen, coming out unfavourably on a numerical estimate of their "danger rates." But these rates, thinks Dr. WALLER, have not been properly calculated, for an examination of the report reveals that it is only in the case of chloroform that any data exist for the calculation of a danger rate, and not one single case of death was met with that could be considered as the uncomplicated effect of ether. The whole of the figures in relation to this comparison were unreliable. Another conclusion in the report was that, in spite of its admitted greater danger of administration, chloroform was an indispensable anæsthetic, and yet no real conclusion

had been formed as to its best method of administration: the facts and figures in connection with this were also unreliable. Dr. WALLER insisted on the paramount necessity of dosage in the administration of chloroform, which was seven times as powerful as ether, and for its success it required the regular respiration of air, in which the chloroform vapour was maintained between the limits of 1 and 2 per 100. The opinion expressed by the Committee that no method of administration was free from danger was probably correct; but the danger of anæsthesia could, and would, as time went on, be considerably diminished, and to this end increased diffusion of precise knowledge for diminution of the death-rate by chloroform was absolutely essential. For this purpose Dr. WALLER proposed that definite steps should be taken: (1) An experimental examination of the statement that by proper application of a volumetric method anæsthesia can be certainly effected of any required degree. (2) An experimental comparison of the relative power of various anæsthetics. (3) The determination of the best method of quantitative estimation of anæsthetics in the various fluids and tissues of the body. (4) A careful re-determination of the statements made by SNOW, GREENANT, PAUL BERT, and DUBOIS, with reference to the percentage of chloroform required for various degrees of anæsthesia, and the percentage of chloroform in the fluids and tissues of animals variously anæsthetised.

TWENTY-FIFTH MEETING OF THE COUNCIL OF THE INDIAN MEDICAL ASSOCIATION.

In accordance with notices issued by command of the President, the Twenty-fifth Meeting of the Council was held at the Office and Library of the Association, 40, Park Street, Calcutta, on Saturday, the 27th April 1901, at 6 P. M.

Present.—Dr. LAL MADHAN MOOKERJEE, Rai Bahadur (President in the Chair), Drs. H. W. JONES and J. R. WALLACE. For want of a quorum it was decided that the proceedings of the present meeting be confirmed in circulation through the *Record*.

1. The notice calling the meeting having been read, the minutes of the Twenty-fourth Meeting were read and confirmed.

2. THE MAYO HOSPITAL AND AN INDEPENDENT STAFF.

The Secretary reported that in this matter, in accordance with the resolution of the Council, he had placed the subject before the Hon'ble Sir FRANCIS MACLEAN, Kt., Chief Justice of Bengal, and Chairman of the Governors of the Mayo Native Hospital, Calcutta, on the 28th of December last, and that his Lordship, in his reply of 11th March 1901, had recommended that the matter be now placed before the Governors of that institution. The Council desired that the Secretary should take the necessary action in the matter.

3. INDIAN GRADUATES AND THE I. M. S.

The Secretary reported that his letter to Government on the above subject had received the following reply:—

No. 589.

FROM

F. S. COWIE, Esq., *Under Secy. to the Govt. of India.*

TO

THE SECRETARY, INDIAN MEDICAL ASSOCIATION.

HOME DEPARTMENT, (Medical.) Simla, the 13th April 1901.

Sir,—I am directed to acknowledge receipt of your letter dated 20th February, addressed to the Private Secretary to His Excellency the Viceroy. The Indian Medical Association, on whose behalf you write, draw attention to a statement which has appeared in the Press, to the effect that the Government of India are desirous of employing 20 medical men on salaries of 600 and 550 rupees monthly, according to their qualifications, in temporary appointments. The Indian Medical Association suggests that it is unlikely that any suitable medical man would respond to this appeal. Allusion is also made to an alleged dearth of candidates for the Indian Medical Service examination held in London, and in both the above connections it is suggested that a certain number of vacancies in the Indian Medical Service may be reserved for competition among graduates of Indian Universities who should be subjected to tests similar to those of the London examination.

2. In reply, I am to say that the Government of India have recently decided to engage 20 medical men with English qualifications temporarily on the terms stated. These medical officers are being recruited not as temporary members of the Indian Medical Service, but to make good for a limited time the shortage in Indian Medical Service officers available for service in India owing to the demands in China and other causes. More than the requisite number of qualified men have responded to the advertisement, and the Government of India do not find it necessary, or think it desirable, to alter permanently the terms of admission to the Indian Medical Service. More than a sufficient number of candidates to fill the advertised vacancies appeared at the recent examination for the Indian Medical Service held in London.

I have the honour to be,

Sir,

Your most obedient servant,

F. S. COWIE,

Under Secy. to the Govt. of India.

The Council now directs that the subject be placed before the Secretary of State for India, the General Medical Council of Great Britain, and the British Medical Association, and that the Secretary take the necessary steps for carrying out these instructions.

4. W. M. O. PROVIDENT FUND.

The Secretary placed on the table the auditor's detailed statement, together with abstracts of income, expenditure, and balance for disbursement among subscribers to this Fund. These statements have been prepared on the following basis:—

(a) From papers left in dire confusion by the Treasurer of this Fund. By entries in the books of the Bank of

Upper India, Ltd., the copy sent was often illegible and incorrect, so that the names of subscribers are confusedly mixed up. This is partly due to the apparent fact that subscribers, their wives, daughters, sons or other relatives, have from time to time sent in the moneys of the subscriber in their own names, thus six names exist under the heading of "CARLETON," for example, while there are only two men of the name of CARLETON in the service. This difficulty occurs frequently. The statement covers the period from 1885 to 1900.

(b) In proportioning the expenditure of each year, the total amount expended has been fractionally divided equally among all the subscribers of that year and previous years.

(c) In making a division of the balance due to, or from, each subscriber, the following deductions have been made from his total subscriptions:—

- 1 His share of each year's expenditure.
- 2 One rupee for each call due to I. M. A. Provident Fund, which constitutes each subscriber of the W. M. O. Provident Fund a member of the I. M. A. Provident Fund. It should be noted that where a subscriber's total subscription has been so small as not to permit of the full deduction of four calls (though up to the present time four more calls are due), there is in each instance of such failure from smallness of subscription, a debt due to the I. M. A. Provident Fund.
- 3 A further deduction of 20% to be held in reserve for six months to meet any possible claims against the W. M. O. Provident Fund.

(d) The auditor's statements will now be put into print, and each subscriber will receive a copy of the same, the expense for which, and the auditor's fee, will be deducted from the reserve balance before final distribution of same is made.

(e) To explain the above, the following example is given. Captain W. R. MCCARDLE, from 1885 to 1900, paid the total sum of Rs. 310-10. His share of the expenditure during these years, including a 20% reserve, which is also deducted, amounts to Rs. 198-15-9; therefore he ought to receive as a credit balance Rs. 111-10-3, and with a deduction of Rs. 4 for four calls, he is credited with a balance of Rs. 107-10-3, which will be paid to him.

(f) The distribution of the credit balance cannot obviously take place till each member of the W. M. O. Provident Fund is in receipt of the printed report of the accounts, so that each one may have an opportunity of furnishing an explanation to the Treasurer in instances where confusion or error has arisen in respect of proper names.

(g) The Council hereby notifies that all claims against the W. M. O. Provident Fund must be submitted to the Treasurer of the Indian Medical Association before the expiration of six months from this date, after which no claim of any kind will be considered as valid.

With a vote of thanks to the Chair the meeting was closed.

COMMENTS AND NEWS.

A WORD ABOUT CONSULTANTS.

THE *Medical Times and Hospital Gazette* says:—We come now to the knotty questions connected with hospital work, and especially that of the out-patient departments. As we have said, it has been urged by some practitioners that hospitals are used by some consultants solely with a view of obtaining private patients, and that, therefore, they encourage a class of patients to attend at these institutions who certainly should not be regarded as objects of charity. It seems to be beyond dispute that, at some recently founded institutions, this practice is followed; but we are compelled to believe, from considerable investigation into the matter, that there is but little, if any, ground for the complaint as regards the great majority of general and special hospitals; and confess that in this some previous opinions have been materially modified by accurate knowledge. It is beyond all doubt that hospitals are abused—but it is to say, that a large number of people go to these institutions and obtain charitable relief who are entirely unworthy of such assistance. Of that fact we have convinced ourselves, and are compelled to believe that there does exist an urgent need for reform at most institutions in the methods of the investigation which should be made concerning their out-patients. It does not appear that this abuse is so considerable in connection with the in-patient department, although to a small extent there appears to be room for improvement therein also. It is a fact, however, that at nearly every hospital out-patients are admitted in one of two ways—either by direct or indirect payment, or by the request of a general practitioner. It has been a matter of considerable and pleasurable surprise to us to discover that a very large proportion of the cases who are admitted free to the out-patient departments of hospitals have obtained that benefit in consequence of a recommendation from practitioners. This fact should in justice be more widely known and recognised than it is at present, because it represents a privilege of considerable professional value. For example, of twenty new patients seen at a certain special hospital on the day of our visit to the institution, fourteen were admitted by letters of recommendation from subscribers—each of whom obtains four such letters, each available for six weeks' attendance, for an annual subscription of one guinea. The remaining six patients were admitted free, because they brought in each instance a card or letter from a general practitioner to the physician on duty; and this, we were informed, was rather below the ordinary proportion. At another special hospital we found that one quarter of the new out-patients brought letters of recommendation from medical men, and that the remaining three-quarters were admitted either by letters from the Hospital Saturday or Sunday Fund, or from a subscriber. At a third institution the proportion was eight patients from general practitioners to ten patients who were admitted free—that is to say, without either recommendation or payment. In nearly every hospital it is a rule that all patients up to a certain fixed number each day, who bring letters of recommendation, shall be admitted by the clerk or out-patient attendant, their names being registered by this official; and in no case does it appear that the attending physicians or surgeons have any power of admitting patients, whether or not of a better class. Their duty begins and ends with seeing and treating those whom the Committee of the Institution authorize to be admitted. The complaint, therefore, to which we have

alluded appears to be unfounded, as far as the great majority of public hospitals are concerned; and the practice in question, when it exists, appears to be confined, as we have said, to certain small institutions which have almost avowedly been founded by, and are maintained for the particular benefit of, their medical staff. Still, while abolishing the physicians and surgeons of most institutions from any attempt, and perhaps even any desire, to draw to their departments a class of patients who are undeserving of charity, it is necessary to take measures to prevent the abuse of hospitals which clearly exists. For this purpose two measures seem requisite: Firstly, no out-patients should pay for their treatment. We contend that, as hospitals are maintained by the charitable for the benefit of the sick poor, so, on the one hand, the institution must be a charity, and not a money-making machine; and, on the other, the patients should be restricted to those who are really poor, the benefits of the institution not being open to those who can afford to pay. And in the second place, we consider that at every hospital there should be an official appointed to inquire into the circumstances and positions of the patients before admitting them to the advantages of the charity. At several hospitals this plan has been pursued for some years with much success, and its general adoption would be of undoubted service, both to the profession and to the charitable public, by preventing the abuse of their benevolence.

THE CREED OF A MEDICAL JOURNAL.

THE *Medical World* says:—We believe in good health mentally, morally and physically, and that it is one of the first duties of man to be well.

We believe that all organised life is developed according to definite laws, and that these laws never change.

We believe that there are laws of health, of which the majority of mankind are to-day ignorant. That is no reason they should always be ignorant. It is our duty to learn.

We believe that ignorance is neither bliss nor innocence. No good thing ever came through ignorance. Know what is right, then do it. Knowledge must precede action; that is, right action. If you know, and do not do it, it is your fault. If your neighbour does not do because he does not know, it is again your fault. First, know; second, do; third, instruct.

We believe there is a distinct relation between right living and right thinking. If you do not think right, you cannot live right. While there may be right thinking and wrong doing, it is certain that right thinking must precede right doing. You must know before you can do.

We believe that moral or physical sickness is the immediate or remote result of the violation of some law of life. Therefore, to avoid sickness, make right living your study.

We believe that the laws of life are very similar, whether expressed in the language of the animal or vegetable world. All organised life must depend upon nourishment. If this nourishment is taken in violation of the laws of life, defect or disaster is the inevitable result. Learn then how, when, and what to eat.

We believe that it is the right of every child to be well born. Stop breeding traitors, assassins and thieves? We need workers, teachers and statesmen. Plan for the improvement of the next generation of the human race with all the wisdom you can obtain. Remember it is quality, not quantity, that is needed in the human family to-day.

We believe in the sacredness of the family, and that it represents the best that has been produced by thousands

of years of evolution. But we believe it may be greatly improved, and if ever perfected, it will be by each one living up to the best that is in him, not to see how many dollars he may leave the contesting heirs.

We believe in the glory of womanhood, and look for the time coming when every man will feel that he stands on holy ground when he meets a woman wearing the crown of approaching maternity.

We believe that our children should be taught the truths of their own bodily structures, and of their relation to the never-ending stream of life. There are sins from which they can never be cleansed, crimes for which there is no repentance.

We believe that the laws of life will not be decided by warriors, politicians or vivisectionists; but will finally become established as these obnoxious classes become extinct.

We believe that disease and drunkenness, cruelty and crime, are but other names for diseases which finally will be prevented.

We believe in prevention rather than redemption. There is less glory in preventing a crime than in converting a criminal; in preventing than curing a disease; but prevention will be the motto of the new era of truth, knowledge, light and health.

THE DOCTOR'S PERSONALITY.

We quote the following from the *Medical Brief*:—Few of us recognise how much personality affects our success in life. The writer knows an able and skilful oculist who barely makes a living, because his person is so disagreeable to those who employ him.

All his skill and knowledge cannot counteract the unpleasant impressions due to a lack of refinement. The man is devoted to his work, and does not realise at what a disadvantage his untidy person and disorderly office place him. Those who consult him admit that he is a good physician, and knows his business thoroughly; but they prefer to go where the senses will not be constantly offended by slovenliness, want of taste and propriety.

Observance of the little niceties of manner, dress and surroundings prescribed by social custom, are of the greatest assistance to the doctor. Many of his patients, especially women, are not able to pass upon his qualifications as a physician. They judge by appearances. And even the most penetrating student of character prefers a doctor who is neat and clean in person and surroundings, gentle and quiet in manner, attentive to the business of the occasion.

The physician should be a broad and cultivated man. Whether he knows it or not, the possession of broad views and cultivated tastes gives a man spiritual power over his fellows. By means of it he dominates and sways men. The possession of inward light draws people just as a strong lens converges light rays.

To be agreeable, sympathetic and kind, of itself alone, emits a healing radiance and warmth, which favorably influences and magnetically attract the patient. The physician who is so devoted to abstract medical science as to completely overlook and neglect the personal factor, has but half learned his lesson. His usefulness is crippled. For practical purposes, the instrument is of quite as much importance as the power. The results accomplished by medicine vary greatly with the personality of the physician. The clean, neat, well-mannered, cultured physician exercises a

therapeutic power far exceeding that of his less careful, less refined brother.

You have all heard this before, but have you realised it, have you acted on it? Few of us live fully up to our lights. It seems pleasanter to do the easiest way and put the blame for shortcomings on circumstances or other people. But in the beneficence of nature, habit makes all things easy. Irksome discipline soon comes to be second nature in the faithful. Set out to discover, improve and train the resources of your person—mental, moral, physical and social. You will be astonished at the power, the recognition and authority they will give you.

INDIANS AND THE INDIAN MEDICAL SERVICE.

On the above subject, Dr. SARAT K. MULLICK of London writes as follows to *The Lancet*:—

"I was more than surprised to see in a late issue an unjust attack by your correspondent on the natives of India. I regret that he should have been so short-sighted as to state that 'the feeling in the service is that there are too many natives in it already, and that any further concession in their interest would be undoubtedly unpopular.' As a matter of fact, it is a very high average if two Indians get in perhaps in a total of between 14 and 20. At each competition the Government do their best to exclude them by holding examinations in London. Notwithstanding this, Indians risk the perils of the deep, leave their hearth and home, and everything that is near and dear to them, to spend a number of years in an inhospitable climate, and spend a large sum of money on the offchance of succeeding in a proverbially uncertain competition, and that, too, in a foreign language. Yet they are grudged the few places which they now hold. Imagine the Chinese filling most of the hospital and service appointments in Great Britain. How would the people here like to be told that the few Englishmen who wrested some appointments from the Celestials had done something which was unpopular, and that 'any further concession in their interest would be unpopular.' No, Sir, the boot is on the other leg. If we are to make any complaint (which I do not make so long as a fair competitive examination is held in England and India), it is that there are too many Englishmen in the Indian services. Your correspondent further says that the Indian degrees are 'not to be compared to the British ones.' Whose fault is it? No one has ever dared to say that the Indian intellect is a whit inferior to that of other nations. Therefore the fault must rest with those who mould that intellect. We want in India teachers to be recruited from all quarters, not, as is the present custom, to take them simply from the Indian Medical Service which thus enjoys a close monopoly. This system excludes some of the most brilliant amongst our profession who have no desire to go through an army medical examination. We can only appeal to fair minded Englishmen to preserve the legitimate interest of an Englishman without robbing their Indian fellow-citizens of their inalienable rights as judged by the chivalrous sense of British justice."

ESTABLISHMENT OF AN INFECTIOUS DISEASE HOSPITAL FOR EUROPEANS IN SIMLA.

Major Lukis, I. M. S., Health Officer and Civil Surgeon, Simla, in the course of his annual report on the Ripon Hospital, made an important suggestion for the establishment of an infectious disease hospital for Europeans in Simla, and he suggested that the Nurses' Home, attached to the Ripon Hospital, which will be vacated at the close of the season on the transfer of the European patients from the Ripon to the Walker Hospital, be utilised for that purpose. He explained that great improvements will have to be made in the water supply and drainage, and everything will have to be done to put things from a primitive to a scientific basis.

LOVELIEST AND MOST LOVED !

Whose baby is loveliest ?

Mother's own.

All round the world—north, south, east, west—

Here alone !

For whether it be a Chinese tot,

With eyes aslant and a shaven crown,

Or a dear little girl of the land of the free,

Or a toddling prince in London town,

Or the one rare treasure a Soudan slave

Hugs to her heart, all wee and brown—

Each in its mother's gentle pride

Is fairer than all the world beside.

Whose mother is loved the best ?

Baby's own.

She whose cheek was first caressed—

She alone.

For whether she be an Ekeima,

Or coloured mammy, or stately queen,

Or a wandering organ grinder's wife,

Jingling and beating her tambourine,

In every land where children are

The baby eyes from their deep, serene

Gaze, rapture-bound by the tender grace

In the mother's bended, love-lit face.

SHORT ITEMS AND PERSONALITIES.

Mr. G. Fox, Assistant to the Civil Surgeon, Allahabad, and in charge of the European Civil Dispensary, has been transferred "temporarily" to the civil charge of the Sultanpur District in the room of Mr. J. T. Parkinson, who is presumably proceeding on leave. Mr. Robertson, Assistant to the Civil Surgeon in charge of the Police Hospital, Allahabad, takes over Mr. Fox's duties in addition to his own. The friends of Mr. Fox will be glad to hear of his promotion, as he has been attentive to his patients and skilful as a medical practitioner. In losing him, one loses a friend as well as a skilful doctor. Mr. Fox left by the mail on Wednesday.

A correspondent writes to the *Indian Witness* :—"I am willing to risk my reputation as a public man if a case of small-pox cannot be cured in three days simply by the use of cream of tartar. One ounce of cream of tartar dissolved in a pint of hot water, drunk at intervals when cold, is a certain, never-failing remedy. It has cured thousands, never leaves a mark, never causes blindness, and avoids tedious lingering. It may also be used to purify the blood."

The suit, *Templeton vs. Colonel Lawrie*, Major Patrick Hehir, I. M. S., and Miss Ada Dacosta, Lady Doctor, was dismissed with costs by Mr. Manekshaw Dastoor, Civil Judge of Secunderabad. In a lengthy and masterly analysis of the case, the Judge held that there was no cause of action, and that none of the acts complained of by the plaintiff afforded him any ground for civil action. The suit was also barred by limitation.

Lieutenant-Colonel W. G. King, C.I.E., I. M. S., Sanitary Commissioner, Madras, shortly goes on leave for about six months. Major A. E. Grant, I. M. S., Deputy Sanitary Commissioner, will act as Sanitary Commissioner, his place being taken by Captain J. W. Cornwall, I. M. S., Health Officer of the Madras Municipality. Mr. K. Matthew, Assistant Health Officer, acting as Health Officer until the Government of Madras can depute an officer to act for Captain Cornwall.

With regret we announce the sad death of Military Assistant Surgeon Francis X. D'Oroz, who was for very many years Senior Assistant Surgeon to the Government Medical Store Depot, Bombay. He died March 24th, 1901, after a sudden acute illness, aged 41 years. He had many friends, and his loss is sadly deplored amongst those who came in contact with him.

Two of the medical officers of the old East India Company have just died in Scotland—Dr. A. Fleming and Dr. C. Douglas. Dr. A. Fleming was 76 years of age. He retired from the Indian army as a Deputy Surgeon-General in April 1874. Dr. C. Douglas died on the same day at Woodside, Kelso, also at an advanced age, having retired from the medical service of the Hon. East India Company as a Staff Surgeon in May 1854.

The long continued agitation for the admission of lads of British and European descent born in India to the merchant shipping service on the same footing as British apprentices, instead of being treated as common lascars, has at last borne fruit. The Government of India has consented to amend the Merchant Shipping Act, and an honourable profession will now be open to Anglo-Indian lads.

The discovery of vaccination by Edward Jenner, of Berkeley, in Great Britain, was transmitted to the State of Massachusetts at the close of the eighteenth century. The first person vaccinated in America was in July 1800, a son of Professor Benjamin Waterhouse, who procured the vaccine matter from Bristol in England.

Major J. H. T. Walsh, I. M. S., Civil Surgeon of Murshidabad is allowed privilege leave for three months, and is permitted to combine with it furlough for nine months. Lieutenant-Colonel T. Grainer, I. M. S., Civil Surgeon of Darbhanga, is appointed to act for him.

Intimation having been received that Mauritius had been free from plague from the 12th to 22nd March 1901, the Regulations of the Venice Sanitary Convention, imposed in the Ports of Calcutta and Chittawong, against vessels arriving from Mauritius, have been withdrawn.

The Government of India have issued orders for the trial of the "Jewell" system of filtration at Bangalore under Captain Reynolds, R. E., on the lines suggested by Major Davies, R. A. M. C.

Lieutenant-Colonel R. N. Campbell, I. M. S., Officiating Civil Surgeon of Purnea, is appointed to act as Civil Surgeon of Dacca, during the absence, on leave, of Lieutenant-Colonel R. Macrae, I. M. S.

Third Class Assistant Surgeon D'Santos, I. S. M. D., on the special recommendation of Lord Roberts, is selected for promotion to the Second Class.

Captain C. H. Morgan, R. A. M. C., and Assistant Surgeon J. Fewwick, I. S. M. D., have been attached for duty to the Boer Prisoners of War Camp Hospital at Fort Ahmednagar.

Major Drury, I. M. S., Professor of Pathology, Calcutta Medical College, is granted 16 months' furlough. Captain L. Rogers officiates.

Major P. W. O'Gorman, I. M. S., Bengal, officiates as Medical Storekeeper, Punjab, *vice* Major Dobson, on leave.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

The Indian Medical Association Provident Fund is now working. It offers a simple and safe form of Life Assurance to all medical men and women. Join at once.

Current Medical Literature.

MEDICINE.

Some Remarks on Diseases of the Pancreas.

SOMMERCHANSKY (*Vratch*) in discussing this important, but obscure subject, points out some of his observations made on 14 cases of disease of the pancreas. While the conclusions are mainly theoretic in their nature, they are nevertheless of sufficient importance to deserve a careful study. From a consideration of the anatomic relations of the pancreas, one may *a priori* expect the latter to become diseased as a result of pathologic alterations in contiguous parts, such as the spleen and liver, and again be the cause of disease of other structures lying in its immediate vicinity, as, for instance, compression of the aorta or its branches by an enlarged pancreas. Referring to the diagnosis of the latter condition, the author points out the physical sign observed by him, namely, the noise heard over the aorta below the point of compression. This noise is constant. Another symptom pointing to a diseased pancreas is the sudden enlargement of the spleen taking place within 24 hours in the absence of malaria. In one case a constant enlargement of the spleen was accompanied by considerable irregularities of temperature, resembling very much intermittent fever. A diagnosis of abscess of the pancreas was nevertheless made, and corroborated by the subsequent discharge of the abscess into the transverse colon. A severe "girdle" pain, or pain in the bladder resembling tabes, gave indications of disease of the pancreas in two cases. Pain was present in all cases. Its location was usually under the pit of the stomach, in the region of the pancreas. The pains were periodic, occurring after meals and lasting one to two hours, when they disappeared until the next meal. Often they had the character of colic, resembling very much hepatic colic. In the majority of cases, however, the pain was described as an uneasy, depressing sensation, not dependent on the character of the food taken, or the state of the bowels. Constant epigastric pulsation, not modified by the state of the stomach or time of digestion, was also noted. This pulsation was invariably accompanied by the feeling of "uneasiness." As etiologic factors in the causation of disease of the pancreas, malaria stands out most prominently. In these cases the malaria is chronic, and many cases of supposed malarial cachexia accomplished by digestive disturbances may be explained by disease of the pancreas. Traumatism is the next etiologic factor, although denied by some observers. The author has had under his care two cases of pancreatic disease of traumatic origin. In one the traumatism was the result of irritation in cycling; the other, a fall upon an overturned stool, the leg striking the region of the stomach. As to treatment, pancreatin in doses of 0.8 gm. after meals is the only drug recommended.

On the Rectal Injection of Water in Diseases of the Stomach, or when the Organism is in Need of Water.

MERING (*Die Therapie der Gegenwart, Vratch.*) advises the employment of water per rectum in view of the fact, established by experiments on dogs, that water is not absorbed in the stomach. "In cases of dilatation of the stomach $\frac{1}{2}$ a litre of warm water, with a slight amount of table salt, is injected into the rectum morning and

evening, and the patient directed to retain it as long as possible. This brings about an increase in the amount of urine; the dryness and thirst are considerably diminished. The author employs this method in cancer and ulcer of the stomach. In cancer, when frequent lavage is performed, these injections are especially indicated. In ulcer the water serves as nourishment during the first week. In inflammations and neuroses of the stomach these injections are also very useful, especially when atony, associated with excessive gastric fermentation and acasty urine, exists. In nervous dyspepsia, characterized by intolerance of liquids, the latter can be introduced by the rectum.

Face and Pupil in Alcoholic Neuritis.

BUTON calls attention to certain symptoms in alcoholic neuritis which he has not seen described in the literature. The first is the peculiar expression of the face, which becomes mask-like and expressionless; the lips appear to move apart separately from the cheeks, but they sometimes appear very mobile. The eyebrows and eyes may move in accordance with the lips, but a fixed and expressionless band stretches across the nose and cheeks between the eyes and lips. He has been able to diagnose alcoholic neuritis, provisionally at least, from observation in this way. Another point is the condition of the pupil reflex which is just the reverse of the ARGYLL-ROBERTSON phenomenon. In a number of cases he has noticed that the reflex to light is rapid and extensive, whereas accommodation to near objects was slight and sluggish or entirely wanting, and in one or two cases he has observed dilatation instead of contraction on accommodation.—*Jour. Amer. Med. Assoc.*

Gastro-intestinal Diseases of Infants.

ESCHERICH classifies the gastro-intestinal diseases of infants as follows: A. Etogenic intoxications (produced by the ingestion of spoiled milk containing toxic substances). (a) Toxic catarrh of the stomach or intestine. (b) Cholera infantum. B. Chymus infection (endogenous intoxication from a normal decomposition of the intestinal contents and secondary inflation of the intestinal wall). (a) Bacterial dyspepsia (acid diarrhoea). (b) Dyseptic catarrh. C. Intestinal infections (inflammatory irritation or invasion of the intestinal wall by pathogenic bacteria). (a) Inflammatory catarrh (inflammatory diarrhoea). (b) Inflammation, gastritis, gastro-enteritis, enteritis, enterocolitis, colitis. ESCHERICH also postulates a number of theses, the more important of which are: (1) That the bacterial flora in the infant's intestine, although derived from without, is constant and autochthonous owing to the constant chemico composition of the food and intestinal contents. (2) The flora of the stool under normal conditions is within wide limits independent of the bacteria introduced with the food.—*Phil. Med. Jour.*

Periodical Insanity.

A. B. DEFENDROF presents the following conclusions on this subject: (1) Periodical insanity is a mental disease characterised by a definite symptomatology, course, and outcome. (2) In point of numbers, it is one of the most prominent psychoses. (3) The symptoms are sufficiently characterised to permit a differentiation, in the first attack from other forms of mental disease, (4) and allow the forecast of the whole course of the disease, i.e., (5) recurrence of attacks throughout the life of the individual, mostly of the character of the first, (6) with fixed intervals of varying length from weeks to years, except in a very small percentage of cases, (7) without a tendency to mental deterioration, except in cases in which the attacks have been long, frequent, and severe, and even then the deterioration is of a light grade.—*Phil. Med. Jour.*

SURGERY.**Removal of Foreign Bodies from the Eyeball.**

DR. CHARLES LUKENS (*Annals of Ophthalmology*), in a paper on this subject containing reports of eighteen cases, sums up his conclusions as follows: This series of cases has shown that: (1) The crystalline lens has proved itself to be the most tolerant of a foreign body. (2) The phagocytic power in healthy eyes is very strong. (3) All foreign bodies should be removed from the interior of the globe as quickly as possible, especially if they are situated near any of the fixed tissues of the eye, as they are very apt to become encysted and apparently to become innocuous for irregular periods of time, and thus mislead and allowed to remain until at some future time, by reason of traumatism or atrophying processes, they are again set loose and excite most disastrous influences upon the organ itself, or even upon its fellow. (4) Wherever possible, the wound of original entry should be used for the extraction of the foreign body. (5) Skiagraphs giving the exact location of the foreign mass are, in the present day of aseptic surgery, absolutely indispensable when the foreign body cannot be seen by the ordinary instruments of precision. (6) Cases of doubtful foreign material, in which no history as to the nature of the object can be obtained, should first be submitted to skiagraphic study, and should the mass prove to be steel or iron, magnets can be safely employed, followed in some cases by the use of forceps. (In this series the electro-magnet of HIRSCHBERG was employed). (7) Particles of other metals, after localization, should always have the attempt made with the forceps for their removal. (8) The presence of copper or stone within an eye gives the most unfavorable results. (9) Wounds in the scleral region behind the ciliary zone, though as a rule made by objects of a large size, are primarily, if aseptic, of less danger and damage to the organ than those, even though very much smaller, which penetrate and injure the tissues of the anterior segment of the globe. (10) Primary treatment, pending operative interference, in uninfected cases, should be palliative and antiphlogistic, consisting in rest in bed, iced compresses, atropine, boric acid washes, etc.

These rules, says the author, hold good, no matter to what extent the traumatism has affected the organ, or to what degree the removal of the humors has taken place, as many eyeballs have been saved which had been considered useless by hasty judgment—eyeballs that have proved valuable to their possessors for visual purposes.

Empyema Surgically Treated.

Treatment.—To summarise the treatment of empyema, the following propositions seem tenable:—

1. Empyema is best prevented by promptly evacuating all considerable inflammatory effusions.
2. In the diagnosis of these effusions, by means of exploratory aspiration, the skin should be punctured by a tenotome at the point where the needle is to be driven in.
3. Serous effusions are best evacuated by aspiration. If they reaccumulate after the third evacuation, they should be subjected to continuous siphon-drainage, the puncture being made by a small trocar and cannula, the latter being of such size that a small drainage-tube may be slipped through it.
4. Recent empyemata are best treated by continuous siphon-drainage, the tube being introduced through a cannula of at least the diameter of the little finger.

5. When, because of a narrow intercostal space, or because of constant bleeding with fibrinous material, siphon-drainage thus provided is inadequate, an inch or one of the ribs (usually seventh or eighth) should be resected, and a drainage tube the diameter of the thumb should be used.

6. When the conditions are such that it is obviously impossible for the lung to expand under the influence of siphon-drainage and respiratory exercises, DELOUME's operation of stripping the pseudo-membrane from the compressed lung should be attempted.

7. When DELOUME's operation is impracticable, a resection of the ribs (ESTLANDER) or of the chest-wall and thickened pleura (SCHUDE), corresponding in extent to the size of the underlying cavity, is indicated.—EDWARD MARTIN, (*Therapeutic Gazette*.)

Suturing the Heart.

It is a well-known fact that wounds of the heart are not always fatal at once. FISCHER collected 376 cases of heart wound, with a mortality of only twenty per cent. of cases dying two to three minutes after injury, and cases have been noted in which a fatal result did not occur until nine months after the wound. Dr. DEL VECCHIO has lately been carrying out some experiments on dogs, from the results of which he concludes that suture of the heart in cases of wound is possible. At the congress held at Rome, he showed a dog whose left ventricle had been wounded in two places forty days previously. Both injuries had been sutured with catgut and silk, and, when exhibited, the animal was apparently in perfect health. On the forty-second day the dog was killed, and on examination it was found that the apex of the heart was firmly adherent to the chest wall. Both wounds were firmly healed, and that one of them had penetrated the cavity of the ventricle was proved by the presence of a scar on the endocardium. Dr. DEL VECCHIO has proposed and detailed a special operation for suturing wounds of the heart in the human animal.—*Med. Times and Hosp. Gazette*.

Digital Examination of the Nose.

HITHERTO, as far as we know, the use of the finger in examining the nose has been limited to the naso-pharynx, where a well-educated digit will find out a good many things. The digital examination of the nose itself is advocated under the following precautions. Carefully cleanse and disinfect the hand, and, having lubricated the little finger, pass the latter into the nostril. The triangular cartilage will be found to yield slightly. The parts which cannot be reached are the structures lying above the level of the middle turbinate body. ALLEN has made it a practice to follow out this method as a matter of routine in all cases of obstinate and inveterate nasal catarrh. The conditions for which he has successfully interfered are:—(1) The form which is due to a constitutional condition. (2) The form which is associated with periodic reflex phenomena. (3) The form which is dependent upon sclerosis (with or without atrophy or necrosis) of the anterior end of the middle turbinate. (4) The form associated with hyperplasia of the anterior end of the middle turbinate. (5) The form associated with thin, highly arched inferior turbinates which project far into the lumen of the nasal chamber.—*Med. Times and Hosp. Gazette*.

OBSTETRICS AND GYNÆCOLOGY.

Surgery of Pregnancy and Labour Complicated with Tumors.

J. BLAND-SUTTON says:—When an ovarian tumor occupies the pelvis and offers a mechanical impediment to delivery, the foetus almost invariably dies, and the following accidents may happen: (1) Rupture of the cyst; (2) rupture of the uterus; (3) rupture of the vagina; and (4) extension of the tumor into the rectum. Rupture of the cyst is the way in which nature usually overcomes the difficulty. The choice of treatment really lies between two methods: (1) In the early stage to push the tumor out of the pelvis and allow labor to be completed and then at some convenient season to perform ovariectomy. This is often referred to as "reposition." (2) To perform ovariectomy at once and then to accelerate the labor by the use of forceps. If the tumor cannot be extracted, then CÆSAREAN section should be performed. This method may be conveniently referred to as ovariectomy, which may occasionally require CÆSAREAN section. Second of three lectures by J. BLAND-SUTTON. The present lecture covers the subjects of uterine fibroids and ovarian tumors. The general conclusions are that the ovarian growths give more trouble to pregnant and parturient women than do fibroids, but that the latter are far more lethal, as they so frequently destroy puerperal women from sepsis. Several clinical histories with illustrations are given, as well as two statistical tables. The author says that the facts at our disposal indicate very certainly that uterine fibroids, even more than ovarian cysts, are a grave menace to successful pregnancy, and in a large number of cases are directly responsible for a premature termination of the pregnancy. When abortion happens, the patient requires to be safeguarded most strictly against infection, for it may involve the fibroid, and in this event the patient not only runs a very great risk of losing her life, but she certainly will have a long illness, and in many instances a serious operation may be necessary to prevent her from becoming a chronic invalid. We must not forget that a woman may have one, and, indeed, several fibroids in her uterus, and yet be the happy and healthy mother of children; but no one will deny that the presence of a fibroid in a gravid uterus is an additional peril to those which are proverbially associated with pregnancy. It occasionally happens that a woman comes under observation, known to be suffering from a combination of pregnancy and fibroids, and a careful examination discloses the fact that if the pregnancy goes to term, delivery by the natural passages would be impossible. In these circumstances hysterectomy is justifiable.—*The Lancet*.

Curability of Uterine Cancer: Necessity of an Early and Correct Diagnosis: Prophylaxis.

PICHEVIN, after briefly reviewing the history of this subject, states that the cure of malignant tumors by surgical intervention is a problem which has for long years presented itself. Early operation is one of the secrets of lasting cure. In THORN'S statistics, out of sixty-two vaginal extirpations, this operator has found recurrence twenty-seven times in the first two years; but in these twenty-seven cases the intervention had been only palliative, the surgeon had not gone beyond the limits of the cancerous region. On the contrary, those women in whom the cancer was limited to the uterus were really benefited by hysterectomy. There was no recurrence in fifty per cent. of them after a period of over five years. The chief trouble is that the patients come too late to receive the benefit of surgical intervention. This is because the patients do not suffer during the first period of cancerous infiltration, and because certain bloody discharges do not attract their attention. It is not so long

ago that it was thought that if, uterine cancer the health was undermined, but when this state supervenes, the growth has already made great inroads and has passed the uterine zone. Uterine cancer may appear at almost any age, even in young women. A foetid odor is generally noticed in the advanced stages. When the patient presents herself, the physician should assure himself by sight and feeling of the condition of the uterus, and carefully establish his diagnosis. —*Jour. de Médecine de Paris*.

Genital Areas upon the Mucous Membrane of the Nostrils.

SCHIFF first quotes from FLIES'S work upon this subject, in which he calls two areas upon the mucous membrane of the nostrils (the anterior part of the lower turbinate, and the tuberculum septi), "genital spots," since they become hyperæmic during menstruation. Besides, in cases of dysmenorrhœa, he says that cocaine of the lower turbinate causes the hypogastric pain, and cocaine of the tuberculum causes the lumbar pain to disappear. Further, should this be so, the dysmenorrhœa can be permanently cured by cauterizing the "genital spots." Not only is this true in nervous dysmenorrhœa, but in many of those cases associated with disease of the sexual organs also. In pure mechanical dysmenorrhœa, however, associated with stenosis of the cervix uteri, anteversion, etc., this is not the case. SCHIFF tested this in 47 cases, in 34 of which two drops of a 20% solution of cocaine upon these genital spots caused the pain of dysmenorrhœa to disappear temporarily, not only once, but whenever applied. Nine of the 13 negative cases showed gynecological conditions. His tests numbered over 200. They were carefully made, suggestion being excluded. When water was used, and not cocaine, the pain persisted. By using other anesthetics (weaker cocaine solutions, suprarenal, etc.), he shows that this is due to anesthesia of the "genital spots." In 12 out of 17 cases of dysmenorrhœa, cauterizing the genital spots was followed by permanent recovery. Further experiments showed plainly the close connection between the hypogastric pain and the mucous membrane over the lower turbinated bone.—*Phil. Med. Jour.*

Removal of Epithelioma of Cervix Uteri during Pregnancy, and Vaginal Hysterectomy after Delivery.

R. J. KINKEAD says:—The patient was a woman of twenty-eight years, multipara, admitted to the hospital in the eighth month of pregnancy. Bleeding had commenced from the uterus some two months previously. The cancerous growth was found to be small, though hæmorrhage had been profuse. It ceased immediately on the removal of the growth. The latter was friable and broke down under the grip of the forceps employed to grasp it. It was removed with the finger and curette, the stump treated with perchloride of iron, and the vagina packed. The patient was discharged from the hospital and was delivered about six weeks later. She was then readmitted, the mass (which had regrown) removed, and a vaginal hysterectomy done. Secondary hæmorrhage resulted, the bleeding area being located in the rectovaginal septum and right broad ligament. There was a general oozing, rather than bleeding from any particular vessel. The patient finally made a complete recovery.—*Dublin Jour. of Med. Sciences*.

Pelvic Massage.

E. E. MONTGOMERY describes the process which he considers advantageous in uterine displacements; in chronic inflammation of the uterus, tubes, and ovaries; in subacute and chronic peritonitis and cellulitis; for the removal of pelvic exudates and unfortunate adhesions after pelvic operations. It is contraindicated in all cases in which it is evident that recent pus collections are present, in suspected ectopic gestation or in recent internal hæmorrhage, in ovarian cysts, unless they are very small, when it has been advised that they should be forcibly ruptured with the hope that the cysts will be obliterated and their subsequent growth be prevented. The procedure is absolutely criminal in every case of suspected malignant disease.—*Therapeutic Gazette*.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Blood in the Urine and the Diagnosis of its Source.

J. WINSTON, Jr., does not believe that reliance is to be placed wholly on the cystoscope and the ureteral catheter, to the entire exclusion of other and silder plans; for these two diagnostic methods are not always applicable. In the presence of hematuria, we are to ask ourselves as to the source and the cause of the bleeding. The diagnosis may be made from the history of the case, the examination of the urine, and the examination of all the organs. History should include inquiries into the family history, previous personal history, age, time at which the blood appears in the urinary flow, frequency and duration of attacks, and the effects of exercise or of complete rest in the course of an attack. The urine should be examined macroscopically, microscopically, and chemically. Other organs, as the heart, lungs, spleen, etc., should all be carefully examined, for their condition may suggest the origin of the hematuria. The author then discusses the peculiarities of hemorrhage from the urethra, prostate, bladder, and kidney respectively. —*New York Med. Rec.*

Pathology of Adenoids.

RICHARDSON describes the macroscopic appearances in adenoids, together with their microscopic structure, and analyses the statistics as regards tuberculosis in these growths from various authorities. He finds that in over 1,000 cases subjected to close microscopic scrutiny, in only about five per cent. was there more or less pathologic evidence of tuberculosis stamped on the glandular hyperplasia. He asks if this is simply an accident, or is it a more intense manifestation of the tuberculous condition which is manifested in a fair proportion of the remaining 95 per cent., but not shown by actual patho-histologic changes. He thinks there is some underlying pathologic condition or conditions responsible, called by whatever name you choose, lymphatic diathesis, scrofula, lymphatism, etc. In most of these cases the family histories, he thinks, will reveal certain conditions that have made their impress on the case; it may be syphilitic, tubercular, an ill-assorted marriage, or a conception in which one or both of the parents were below par at the time. —*Jour. Amer. Med. Assoc.*

Organisms resembling the Tubercle Bacillus.

MAYER (*Virchow's Archiv.*) says:—A number of organisms has recently been described, which resemble the tubercle bacillus in retaining the stain after treatment with acids and alcohol. The most important are the PETRI-RABINOWITSCH bacillus, named after its discoveress, RUBNER's bacillus, the "TIMOTHEE bacillus," found by MÖLLER on a species of grass (*phleum pratense*), and the dung or "Mist-bacillus" (*Morison*, Vol. 1, pp. 174 and 200). MAYER has experimented with a view to discover whether any of these organisms have pathogenic properties. Koch's bacillus alone always produced peritonitis in guinea-pigs, which was followed by general infection when injected in pure culture. The PETRI-RABINOWITSCH, RUBNER's, TIMOTHEE and dung bacilli produce a fatal plastic peritonitis in guinea-pigs only if injected together with butter, which forms a protecting envelope round the organisms, and also a suitable nutrient medium. The same is true of the bacilli of fish and avian tuberculosis. With certain histological differences

all these bacilli, except KOCH's, grow in the guinea-pig as star-shaped masses, which extend radially and become enclosed in a mesh-work of degenerated fibrin cells. The initial star is surrounded by a ring of multinuclear leukocytes, which later give place to a collection of epithelioid cells undergoing fibrous degeneration. If butter is present, nodes or tubercles which undergo caseation or organization, are produced by all in various degrees. The bacilli of fish and avian tuberculosis produce nodules which rapidly become organized and encapsuled. Metastatic foci were produced by the PETRI-RABINOWITSCH bacillus once in the liver and once in the pancreas. In the case of all the others the inflammation was confined to the peritoneum. KOCH's bacillus alone produces metastases in the lungs. Slight attempts at organization, early and extensive caseation, and unlimited extension, are the chief distinguishing features of KOCH's bacillus.

Bacteriology and Religious Rites.

THE following remarks are quoted from a lengthy article in *The Lancet* :—

It would, indeed, have been a proof of marvelous prophetic intuition if those who first initiated religious ceremonies had foreseen and prepared for discoveries to be made centuries later. Several of our correspondents have expatiated on the risk attending the promiscuous use of the communion-cup. This, however, is far from being the only risk of this description. The holy water in Roman Catholic churches is quite as serious a matter. The shallow, shell-shaped receptacle is placed barely three feet or so from the floor, so that the dust stirred up by the feet or shaken off from the persons who pass by, readily falls into it. Innumerable fingers, not always scrupulously clean, are dipped into the water. Also, it is just at the moment of danger and trouble that the faithful are most prone to resort to their church for prayer and consolation. Coming straight from the sick-bed of some loved parent or friend, can we expect that the hands are always thoroughly disinfected before they touch the holy water? In Spain especially, and during the great cholera-epidemic of 1885, we have noted that the holy water was absolutely dirty, and living organisms could be seen with the naked eye, so what the microscope would have revealed may well be imagined! Now, the fingers convey this water to the forehead and breast of the devotee, and of course the mouth might also be touched with the same fingers. But we do not see that there would be any lack of reverence shown if this holy water was changed more frequently, nor are we aware that it would be a sacrilege to mix with it some strong antiseptic solution. Again, at the Ahmed Mosque of Constantinople there is a small piece of black stone brought from the Kaaba of Mecca. Against this piece of stone the true believers come and rest their heads for a considerable time. By so doing it is supposed that various illnesses can be cured, and as there are certain affections that can be favorably affected by the force of suggestion, the results sometimes attained seem to confirm this superstition. But though a hard stone is less dangerous than water, and germs of disease deposited upon its surface would soon be oxidized, still patients following each other in rapid succession might convey to one another pathogenic microbes. The same may be said with regard to the kissing of the toe of the bronze statue of St. PETER at St. Peter's, Rome. Would it be too much to ask that this stone, this bronze toe, and other similar objects of reverence and adoration should be frequently wiped with a rag moistened in an antiseptic solution? Why should science and religion be divorced one from the other? If we have been endowed with the intelligence to foresee a danger, may we not with all due reverence take the necessary precautions to ward off this peril? With regard to the communion-cup, Count LEO TOLSTOI, in his recent novel "Resurrection," describes the celebration of the liturgy in the chapel of a Russian prison. Here the priest puts the bread into little pieces and dips them in the cup containing the wine. Then with a spoon he places the pieces of bread and wine into the penitent's mouth. Thus there is no drinking out of the cup, and it would be much easier to have a clean spoon for each communicant than a separate cup. This is the general practice of the Orthodox Greek Church, and one which lends itself better to sanitary precautions than that of the English church and her sister communions, as we have already pointed out.

**PUBLIC AND DOMESTIC HYGIENE
AND SANITARIANISM.**

**Symmetrical Development, or does our
Present School System develop the
Highest Powers of the Pupil.**

H. STURGEON concludes that: (1) The physical, intellectual, and moral powers of the pupils should be developed at the same time. (2) Parents and teachers should realize that in its development the child is an epitome of the development of the race and possesses many characteristics of the savage, barbarous, and semi-civilized races, and that instruction must ever be adapted to its changing needs. (3) The successful teacher must understand his own powers and limitations; he must understand the growing pupil and be able to put himself in the latter's place; he should have a more comprehensive knowledge of the laws of mental development, a better understanding of educational methods, and the best means of imparting instruction. He should be better paid and thus encouraged to make teaching a life-work. (4) More enthusiasm is needed and less routine; more original investigation and search after truth for the truth's sake, and less cramming for examinations; less talking and lecturing on the part of the teacher, and more time devoted to training pupils in systematic and logical analysis, and in clearness and accuracy of expression. (5) So many studies should not be pursued at the same time. The number-drill and arithmetic, together with other formal and abstruse work, should be greatly curtailed for the younger children and more time be given to the study of natural objects in their natural surroundings. (6) More time should be given to manual training. (7) Greater care should be exercised in promoting the health and proper physical development of the pupils. (8) All harsh and dangerous punishments should be banished from the schools.—*Jour. Amer. Med. Assoc.*

**Relation of Scurvy to Recent Methods
of Artificial Feeding.**

J. P. CROZER GRIFFITH finds an etiological factor in the extensive use of proprietary foods, in food containing or derived from starch, and occasionally in the use of cooked or partially cooked milk. It is difficult to speak positively concerning the last named, for we so often find proprietary foods used in connection with milk that it is difficult to estimate the relative weight of each of these two factors. In sterilized milk the trouble may lie not in the milk itself, but in the absence of the proper proportions of proteids, fats, and sugars. A series of sixteen cases is given illustrative of the general statements above made. The great remedy in the disease is fruit juice. When this is added to a given diet, it is often possible to continue the latter without modification. Every case must be a law unto itself as concerns dietetic management, for what is one baby's meat is another baby's poison.—*New York Med. Jour.*

An Action for Fees.

BARKER AND JAMES v. COXE AND BURNARD.

THIS case was heard before Mr. JUSTICE WILLS on December 1st. The action was brought by Dr. R. H. BARKER, who practises in partnership with Dr. JAMES at Hungerford, to recover the sum of £301 7s. 9d. for professional services rendered to the late Mr. COXE, of Newbury in Berkshire. A disburse arose as to the sum of £68, the residue of the amount claimed having been paid into court

by the defendants, who were the widow and one of the executors of the deceased. The defence was that these charges were unreasonable.

Mr. ATKIN appeared for the plaintiffs, Mr. BROOKS for the defendants.

According to Dr. BARKER's evidence, it appeared that Mr. COXE had been his patient for over twenty years. In April of the present year Mr. COXE was suffering from a severe attack of gout and gangrene of the foot. He especially requested the plaintiff to visit him every evening at or after 9 P. M. Dr. BARKER lived three and a half miles from his patient's house. For each of these visits a charge of £2 2s. had been made. In cross examination he admitted that he generally charged 10s. 6d. for a daytime visit, and that the deceased had made him a present of £100 shortly before his death.

His Lordship observed that such a gift had nothing whatever to do with the present case.

Dr. MAURICE (Marlborough), Dr. WATSON and Dr. HAMPDEN having given evidence to the effect that the charges were reasonable—

Counsel for the defendants, called Dr. MAJOR (Hungerford) and Dr. W. D. OLARK (Newbury), who stated that it was customary to charge double fee for a night visit, but they admitted there was no invariable rule.

Without calling on counsel for the plaintiff to reply, his Lordship gave judgment, and said that the reasonableness of a doctor's charges depended upon the circumstances of each case. Here the plaintiff had been requested to attend this patient every night in the week, and in his judgment the charges were reasonable. Judgment for the plaintiff, with costs.—*Brit. Med. Jour.*

Three Hundred Autopsies of Suicides.

A. HELLER says:—The autopsies were made at the Pathologic Institute at Kiel, and the findings demonstrated that nearly 50 per cent. of the so-called suicides had been mentally irresponsible, and consequently not actual suicides. Of the seventy women, 47.4 per cent. were menstruating, pregnant or convalescing from child-birth, the first forming 35.9 per cent. Syphilis seemed to be a factor in the suicides to a certain extent; eight subjects had syphilis and six syphilophobia, fostered by charlatans, frightening, pretending to treat, and then collecting blackmail from them. In only 8 per cent. of the entire number of suicides were no traces of pathologic lesions to be discovered, including a few in advanced putrefaction.—*Jour. Amer. Med. Assoc.*

As to Child Resembling Alleged Father.

THE Supreme Court of Minnesota holds that it was improper, as tending to prejudice the jury, for the prosecuting attorney to call the attention of the jury, in the bastardy case of *State vs. Brathovde*, to the supposed resemblance of the child in question, a babe in arms, which was only about three months old, to the defendant, who was charged with being its father. The supreme court observes that it is a common saying that all young babies look alike, and thinks that such an invitation would but tend to give free scope to the imagination in attempting to test the attorney's suggestion.—*Jour. Amer. Med. Assoc.*

recovery is almost certain. The above statements will inspire confidence in the public, and it is my earnest appeal that this treatment may largely be availed of.

I may bring to the notice of all those who have real sympathy for suffering humanity that the germicide is saving many lives, and is adopted by many leading medical men of the city, and also at several plague hospitals.

TECHNO-CHEMICAL LABORATORY, BOMBAY ; } Yours, &c.,
Girgaum, 23rd March 1901. } F. K. GAJJAR.

II.

With reference to the above, Dr. EDULJEE COWASJEE TUKINA, M.D., of Mambadevi Bombay, writes thus to Prof. GAJJAR :—

"I beg to inform you that I tried your liq. iodine terchloride in a good number of cases of plague and some few cases of remittent fever during the recent epidemic at Bombay. I herewith send you the form filled up, with the results obtained by its use in cases of bubonic and other fevers. From this I come to the following conclusions :—

(a) That iodine terchloride acts as a sure and effective antipyretic and germicide remedy.

(b) That it has undoubted curative powers in cases of plague, if such cases be treated with the solution at the very beginning of the outset of the symptoms. This you will find from the form I have filled up. Even in moderately severe cases, if the cases be put under its influence as soon as the symptoms have developed, it has proved successful in my hands.

(c) In advanced cases, although it acts as an antipyretic, still the results are unfavourable.

(d) As compared with the results obtained by me from the use of other modes or remedial means for the treatment of plague, your terchloride of iodine solution has given far better results in my hands.

(e) That in mild cases of plague no other stimulants are necessary, except the regular doses of the solution every two hours, with rum and milk as a diet at short intervals.

(f) That in serious cases, where there is fear of the failure of the heart, I had recourse to a stimulant mixture of caffeine citrate, spirit ammonia aromatic, strychnine and brandy, and this stimulant mixture given alternately with your solution had produced beneficial results in such cases.

(g) That in cases of remittent fevers of a mild type, and in cases of influenza, it has acted as an antipyretic from the very first dose. The fever did not return, and so there was no need for giving any antiperiodic as quinine.

(h) As adjuncts, I had recourse to saline draught for constipation ; to rum or brandy with milk or stimulant mixture in cases in which these were indicated ; to ice on the head constantly.

(i) Lastly, I would urge the necessity of mentioning to you that I had used your solution every two or three hours, day and night, in plague cases till recovery took place."

RETIREMENT OF COLONEL E. LAWRIE, M.B., I.M.S.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I trust you will kindly find space for the following in the columns of your wide-famed journal.

The time is fast approaching when we shall have to bid adieu to our much-esteemed and popular Residency

Surgeon and Principal of the Medical School, Colonel EDWARD LAWRIE.

Words fail to express the universal regret that is felt (especially by his students, past and present,) at the loss of such a valuable and fatherly superior.

Dr. LAWRIE came to Hyderabad in the year 1884, and during his *regime* of office, vast changes and improvements in both the Medical School and Medical Department have taken place. He has, by dint of great perseverance and administrative skill, brought about a state of perfection in both these departments, which were unknown before. Availing themselves of the sound instructions received from this able superior, many students proceeded to Europe and qualified themselves with great success in the degrees of the Edinburgh University ; many are still prosecuting their studies there, and many more are on the eve of departure to Europe to win laurels for themselves as well as gain credit for their "Alma Mater"—the Hyderabad Medical School—ably superintended over by Colonel E. LAWRIE.

During his tenure of office in Hyderabad, many questions of scientific importance have arisen, notably amongst them the Hyderabad Chloroform Commission, and remarkable was the manner in which he strove to quell the world-wide opposition that was against him. Above all, his unique "Plague administration" far surpasses all his efforts that deserve public recognition of his services.

It pains us very deeply indeed to see that he will be soon leaving us *without* the satisfaction of being rewarded for the services he has rendered the State and the public at large.

In conclusion, I make bold to state that his services as Plague Commissioner not having been recognized, calls for some comment. Why is it that the city and suburbs of Hyderabad are free from plague to-day? notwithstanding the intimate connection that exists between Hyderabad and all the plague centres, Bombay in particular. Is it not the excellent arrangements existing all over the country to prevent the ingress of plague into Hyderabad? and for this arrangement we are indebted to Dr. LAWRIE. I venture to think, and if I am not mistaken, the general consensus of opinion is that were it not for some *outsiders* that have had a hand in plague matters, and who were always ready to theorise, although not possessing an iota of knowledge of medicine and propounding their views broadcast, that Colonel EDWARD LAWRIE, our much-esteemed and well-beloved superior, would have left Hyderabad laden with honors for the valuable services he has rendered.

Yours, &c.,
G. H. M. S.

Hyderabad, 22nd April 1901.

LIQ. IODINI TERCHLORIDUM.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Would any of your numerous readers kindly let me know, through the medium of your widely circulated journal, as to where I can procure Professor GAJJAR'S "Liq. Iodini Terchloridi," which is used in cases of bubonic plague with very encouraging results. I have already addressed him at Bombay, but I am not sure if I have addressed him correctly.

Yours, &c.,
A MEDICAL PRACTITIONER.

SOMASTPUR, T. S. RV. ;
22nd April 1901.

Government Medical Gazettes.

MADRAS.

Lieut.-Col. Sarkis Carapet Sarkis, I.M.S., to act as Dist. Med. and Sany. Offr., Kottai, during the employment of Capt. C. B. Harrison, I.M.S., on other duty.

Lieut.-Col. Kavasji Ganesji Sanjeev, I.M.S., to act as Dist. Med. and Sany. Offr., South Canara, and Supdt., Dist. Jail, Mangalore, during the employment of Capt. R. H. Elliot, I.M.S.

Lieut.-Col. James Cort Marsden, I.M.S., to act as Dist. Med. and Sany. Offr. with med. ch. of Central Jail, Coimbatore, during the employment of Major D. Simpson, I.M.S.

Capt. Pulitney Charles Gabbett, I.M.S., to act as Personal Asst. to the Surgn.-Gen. with the Govt. of Madras, during the absence of Capt. C. Donovan, I.M.S., on leave.

M.R.Ey. Rao Babu M. Thammam Singh Hazari Garu, M.D., to act as Civil Surgn., Cochin, during the employment of Capt. C. L. Williams, I.M.S.

Mr. Cornelius Theodore Saldanha to act as Dist. Med. and Sany. Offr., Anantapur, during the employment of Lieut.-Col. H. M. Hakim, I.M.S.

BENGAL.

Dr. James Kelle made over ch. of the Dumka Jail to Asst. Surgn. Hari Prasan Sen on the 2nd April 1901.

Asst. Surgn. Brojo Nath Chowdhury is allowed privilege leave for one month from the date on which he was relieved of his off. duties at Jessore.

Asst. Surgn. Hari Padu Mukerjee, Inspr. in ch. of the Animal Vaccination Depot, Calcutta, is apptd. to act at the Narayanganj Subdivn. and Dispy. in the Dacca dist., vice Asst. Surgn. Sasanta Kumar Sen.

Capt. L. Rogers, I.M.S., Deputy Sany. Commr., Metropolitan and Eastern Bengal Circle, is allowed privilege leave for thirty days from the date on which he may avail himself of it.

Babu Sarnal Lal Sarkar is admitted into the service of Govt. as an Asst. Surgn. of the third grade from the 20th Sept. 1899.

Asst. Surgn. Zahiruddin Ahmed, Khan Sahib, in med. ch. of the dist. of Bogra, is allowed furlough for one year, from the 14th Jan. 1901, in commutation of the three months' privilege leave granted to him under Govt. Notification dated the 19th Feb. 1901.

Lieut.-Col. R. D. Murray, M.S., I.M.S. (Bengal), Professor of Surgery in the Med. Coll., Calcutta, and *ex-officio* Surgn. to the Coll. Hosp., is granted privilege leave for three months combined with five months' furlough out of India on med. certificate from the 4th March 1901.

CENTRAL PROVINCES.

Civil Hosp. Asst. Kharag Singh, on plague duty at Jabulpore, is transferred in the same capacity to Jharsoga, in the Sambalpur Dist.

On relief by Hosp. Asst. Kharag Singh, Civil Hosp. Asst. Dambhatli Swain is directed to do duty under the orders of the Civil Surgn. at Raipur.

Privilege leave for three months is granted to Lieut.-Col. W. A. Quayle, R.M.S., Civil Surgn., Nagpur, from the 1st April 1901, or the subsequent date on which he may avail himself of it.

Privilege leave for three months is granted to Asst. Surgn. Datt Singh, on gen. duty at Hoshangabad.

The services of Civil Hosp. Asst. Muhammad Amir, on gen. duty at Balaghat, are tempy. placed at the disposal of the Forest Dept.

Civil Hosp. Asst. Rajaji Ballram is directed to resume ch. of his duties at the Kothi Bazar Branch Dispy., Hoshangabad.

On being relieved of the ch. of the Kothi Bazar Branch Dispy., Civil Hosp. Asst. Sadashib Narayan is directed to do duty under the orders of the Civil Surgn., Hoshangabad.

Civil Hosp. Asst. Muhammad Umar Khan, attached to the Patharia Branch Dispy., Damoh Dist., held ch. of the famine relief kitchen at that stn., in addn. to his own duties, from the 29th May to the 16th Oct. 1900, inclusive.

Sick leave for four months and fifteen days is granted to Civil Hosp. Asst. Vihram Sitaram, attached to the Simga Branch Dispy., Raipur Dist., from the date on which he is relieved of his duties by Hosp. Asst. Shetram.

Civil Hosp. Asst. Saliyad Muhammad Habibullah, attached to the Main Dispy., Seoni, was granted privilege leave for twenty days from the 9th Feb. 1901.

Civil Hosp. Asst. Ganesh Sitaram, attached to the Jail and Police Hosps., Seoni, was directed to hold ch. of the Main Dispy. there, in addn. to his own duties, during the absence on leave of Civil Hosp. Asst. Saliyad Muhammad Habibullah.

Civil Hosp. Asst. Muhammad Murtaza Husain, on special duty at the Chhpara Cattle Fair, Seoni Dist., is apptd. to the Lakhnadon Branch Dispy. in that list.

Civil Hosp. Asst. Shaikh Wali Muhammad, attached to the Lakhnadon Branch Dispy., is tempy. apptd. to the Main Dispy., Seoni. He assumed ch. of the Main Dispy. from Ganesh Sitaram on the 19th Feb. 1901.

Civil Hosp. Asst. Shaikh Wali Muhammad, tempy. attached to the Main Dispy., Seoni, was directed to do duty under the orders of the Civil Surgn. at that stn.

Civil Hosp. Asst. Shaikh Wali Muhammad, on gen. duty at Seoni, is granted privilege leave for three months from the 1st March 1901.

Civil Hosp. Asst. Haradramanna Mukerjee, of the Bengal Med. Establt., was, on relief from famine duty (Civil), posted on gen. duty at Raipur.

BURMA.

Hosp. Asst. D. Philip made over, and Hosp. Asst. Syed Mahomed Abdus Satar assumed, ch. of the executive and med. ch. of the Shwegyin Dist. Jail on the 19th Dec. 1900.

Mily. Asst. Surgn. A. H. Nolan made over, and Mily. Asst. Surgn. P. McCarthy assumed, executive and med. ch. of the Monywa Dist. Jail on the 20th March 1901.

Mily. Asst. Surgn. A. H. Nolan, on transfer to Akyab, made over, and 2nd class Mily. Asst. Surgn. Patrick McCarthy assumed, ch. of the Civil Surgeoncy of the Lower Chinwin dist. on the 20th March 1901.

Senior Asst. Surgn. Omerti Lal Moonahl, on proceeding on three months' privilege leave, made over, and Dr. Abdul Rahman, L.R.C.P. and S., Edinburgh, assumed, ch. of the Civil Surgeoncy of the Thongwa dist. on the 20th March 1901.

Hosp. Asst. Ram Chandra Ghosal, on arrival from India, assumed ch. at the Gen. Hosp., Rangoon, on the 22nd Jan. 1901, as a supy.

Hosp. Asst. Ram Chandra Ghosal relinquished ch. at the Gen. Hosp., Rangoon, on the 13th Feb. 1901, and assumed ch. of his duties with the Southern Shan States Ry. Survey Party.

Hosp. Asst. Ganga Ram relinquished ch. at the Gen. Hosp., Mandalay, on the 26th Jan. 1901, and assumed ch. of his duties with the P. W. Dept. Canal Works, No. 8 Subdivision at Ingya on the 30th Jan. 1901.

Hosp. Asst. U. Raman Niar relinquished ch. at the Outpost Hosp., Tallowgyi, Myitkyina dist. on the 22nd Feb. 1901, and assumed ch. at the Police Hosp., Myitkyina, on the 26th Feb. 1901.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTHS.

BÖRMEL.—At Aijal, Lushai Hills, on the 2nd April 1901, the wife of Mr. R. A. Börmel, Civil Medical Officer, of a daughter.

MAIDMENT.—At Kotagiri, on 8th April, the wife of Major F. G. Maidment, I.M.S., of a son.

MARRIAGE.

STEPHENS—SANDYS.—At St. John's Church, Meerut, on the 16th April, by the Rev. R. M. Kirwan, M.A., Chaplain, John William Watson Stephens, M.D., Cantab., D.F.H., to Mary Sophie, eldest daughter of Lieutenant-Colonel E. C. C. Sandys, I.S.O.

DEATH.

BARTIST.—At Mian Mir, on the 6th April, Captain T. Bartist, I.S.M.D., in charge of the Sanitation Hospital there.

ORIGINAL ARTICLES.

PROSTATIC HYPERTROPHY.*

By H. V. CRITCHLEY HINDER, M.B., CH.M.,

Honorary Surgeon, Prince Alfred Hospital; Lecturer, Clinical Surgery, Sydney University, Sydney.

I FEEL that I need offer you no apology for the introduction of the subject of prostatic hypertrophy, but rather that we should offer every apology to the prostate and to those who suffer from prostatic hypertrophy for having in the past paid so little attention to this very common and very dangerous condition.

The very few papers on urinary disease which have been read before this society during the past few years is fair evidence of the lack of interest which is evinced in the subject. Doubtless the glamour which is thrown over intraperitoneal surgery has induced every tyro to brag of the number of sections he has made, even as an Indian of the scalp he has taken.

The genital organs of women have been subjected to the closest scrutiny, and at times removed on the slightest provocation, but those of the opposite sex have received but scant attention—why, it is difficult to say; but I am quite convinced that if some of the older members of the profession who now suffer from troubles connected with advancing years had their time over again, this particular branch of surgery would soon occupy the exalted position its importance deserves.

In a short paper like this, it is not my intention to go deeply into the matter, but to draw attention to a few features in connection with prostatic hypertrophy, which may be of interest to some of you, and perhaps of some clinical value.

The older teaching that this morbid condition is limited to advanced years is by no means precisely correct. Though it is true that the majority of cases occur after fifty years of age, I have seen a few patients far younger. One man of 41 years, who had four ounces of residual urine, had an obstruction consisting of a median nodule as large as a pea, which very effectually blocked the orifice of the prostatic urethra. In another case the patient was 43 years of age, and his symptoms had lasted for five years, so that he was 38 when his condition first declared itself. At the time of operation the residual urine amounted to fourteen ounces. He had taken advice frequently, but doubtless his age had served to eliminate the probable cause of his trouble. The obstruction at the time of removal consisted of a collar, whose lower lip was as large as a pigeon's egg.

It is not at all common to find men of very advanced age suffering from prostatic hypertrophy. I knew some half dozen only who were over 75, but I have known many whose ages were between 75 and 94, and who had never experienced any symptom of prostatic hypertrophy. THOMPSON states that 34 per cent. of men over 60 have enlarged prostates. BALFIELD makes it 30 per cent. Marked symptoms of prostatic hypertrophy are said to be found in only 15 per cent.

Notwithstanding the various theories which have been propounded as to the cause of prostatic hypertrophy, I think that it is most reasonable to look upon the condition as one of the features associated with approaching senility. All old men do not suffer from enlargement of the prostate, nor, on the other hand, do all men grow old in the same way, and even as some men may possibly develop the condition soon after the early age of 40, so may others begin to show signs of cardiac or respiratory failure at the same age.

The variable character of the enlargement is often not sufficiently borne in mind. A very common fallacy is that if the prostate be not felt enlarged per rectum, that it therefore does not cause any obstruction to the flow of the urine.

I have found a blockage sufficient to give twenty ounces of residual urine associated with a prostate that per rectum showed barely any increase in size, and, on the other hand, a prostate that appeared per rectum to be about as large as a goose's egg, gave rise to no irksome prostatic symptoms, and was accompanied by no more than one ounce of residual urine. Everything depends on the size and relationship of the obstruction to the internal orifice of the urethra. A small nodule may cause more trouble than a prostate which is so enlarged intravesically as to increase the length of the prostatic urethra by two inches. Examination of museum specimens is no doubt a valuable adjunct in obtaining a proper conception of pathological conditions; but at the same time such specimens are apt to confuse one's clinical ideas. The prostate, as seen in a split-up, shrunken bladder in a museum jar, is a very different thing to a prostate in a distended living bladder seen with a cystoscope, or with a windowed speculum introduced suprapubically.

An examination of the sketches I have introduced in a somewhat diagrammatic fashion shows very well the state of things found, and will probably explain more easily than I can in words the extent of the obstruction.

The character of the enlargement varies considerably, but in most cases the glandular element predominates, but, unfortunately, the fibrous and muscular tissue is also present to such a degree that the induced atrophy of a large prostate does not always lead to such a reduction as to allow of normal micturition. In the majority of cases, the so-called middle lobe enlargement, though the middle lobe is really only a pathological condition, has existed in about 85 per cent. of the cases examined by me. THOMPSON, WATSON and DITTELL all make it about 90 per cent. Enlargement in this situation is always associated with a general increase in the size of the organ, but in a very varying degree. It is not uncommon to find an anterior knob-like prominence as well as a posterior; or the two may coalesce laterally to give an irregular collar-like arrangement. This collar is quite internal to the so-called internal sphincter, which is after all merely a prolongation of the muscle wall of the bladder.

I may at this stage be permitted to speak of another condition, which is probably at times mistaken for a prostatic collar. I have only met with it on three

*Reproduced from the *Australasian Medical Gazette*.

occasions on opening the bladder. It has been spoken of by BELFIELD and POST as a hypertrophy of the prostatic sphincter. BELFIELD has described these cases as existing in young men under thirty years of age. My own cases were in men between forty and fifty. POST speaks of it as a fibrous ring, though no examination was made. In two of my cases sections were cut, and the portion removed was wholly made up of a little non-striped muscle, much fibrous tissue, and was thickly permeated with vessels looking somewhat like erectile tissue. All these patients had a large amount of residual urine, one of them to the extent of 40 ounces, though his urine was clear. The frequency in my cases varied between twenty minutes and one and-a-half hours. As a rule, there is a considerable amount of pain along the urethra, and frequent and painful micturition which often improved for a short time. On introducing the finger into the bladder, the internal meatus, instead of presenting the funnel-like shape which is present in a normal, well-distended bladder, is felt to be rigid, hard and contracted, and only after some pressure will it give way. Free removal of a triangular section, followed by drainage for a time, restored normal micturition.

The general enlargement of the gland is very often accompanied by a formation of bosses on the surface, and particularly at the meatus. In this manner a large mass is formed, which must be removed before micturition can be restored. Then, again, the enlargement may be general, and take place in a peculiar manner, and can hardly be better described than by saying that the prostatic urethra becomes prolonged in an upward fashion, so that the meatus is found at times quite two and-a-half to three inches away from the normal situation. On two or three occasions I have seen grave errors made. A soft catheter has been introduced, and when after traversing what is considered to be a full distance without any result, further efforts are made with a silver instrument, and repeated unsuccessful attempts have terminated in a false passage, or some serious damage to the urethra, for under such circumstances, unless the catheter has a long curve and is well depressed between the thighs, the bladder contents are not reached. In one case, by far the largest prostate I have ever seen, the opening of the urethra, that is to say, the summit of the prostatic mass, was situated three-quarters of an inch from anterior abdominal wall when the bladder was distended. The growth was made up of two large lateral masses, and an irregular mass in the centre, which in itself was as large as a goose's egg. Very little urine could be drawn off unless the patient stooped forward, and, as it were, emptied his bladder into the catheter which projected into the upper part of the viscus.

I once knew a man who assisted himself to micturate occasionally by passing a small broom handle into his rectum, and so lifting up the posterior part of his bladder was in somewhat the same fashion enabled to more completely get rid of his urine. The so-called valve-like obstruction to the meatus appears to be overcome in this way. As the bladder becomes more and more distended, instead of pressing the prostate over the urethra, its walls

pull on the obstructing mass and tend to draw it away, so that the feebleness the distension the more does the mass block the internal meatus. I have noticed this frequently on introducing my finger into a distended bladder, and so marked is the dragging aside and flattening out of the prostate that until the fluid has escaped, one is at a loss as to how great the enlargement really is. As the fluid passes out of the bladder, the obstruction being released can be felt to close in over the meatus, effectually blocking it. One can easily understand how that the urine collecting in the bladder must necessarily increase to an extent sufficient to draw aside the prostatic obstruction, and that expulsive efforts by increasing the tension of the bladder wall serve to, in some degree, still further draw it on one side. This is after all a little like what tends to happen under normal conditions. As the bladder becomes distended, there is a widening out of the internal meatus, so as to make the prostatic urethra one with the bladder before the normal inclination to micturate is felt.

Not only has the prostatic patient to put up with the mechanical obstruction offered by an enlarged prostate, but he is liable to have his difficulty of micturition still more increased by the accidental inflammatory troubles which are likely at any time to supervene. A glass of whisky or port, or any unaccustomed amount of alcohol, will irritate and bring about a complete retention. A chill following upon wet feet, the fatigue and jarring of a long railway journey, may produce the same result. Then again the effort to pass urine apparently sometimes brings about such a congestion of parts as to cause an erection, which still further lessens the possibility of getting rid of the urine. One patient of mine, an old man of 76 years, tells me that about every three weeks he has a complete erection, and is able to completely empty his bladder. I can hardly understand this anomaly, unless he may have a marked development of the muscular fibres along the urethra, which are continued into the prostate, and that his obstruction is of such a character that these, on contracting during erection, somewhat level out the urethra. I have not been enabled to make a complete examination, so that I hardly know the character of the obstruction.

The effect of enlargement of the prostate on the sexual organs is usually very marked, and many complain of impotence, who after prostatectomy have completely recovered their sexual power as well as the power of free micturition. This is rather singular; but yet two or three of my own patients have assured me that such is the case. Directly the bladder becomes unable to completely rid itself of its contents, great changes take place. The resisting power of the epithelial lining is diminished, the muscle fasciculi become hypertrophied, and at the same time the marked degree of tension, increased by the intravesical pressure, brings about a bulging and pocketing between the prominent cord-like masses which after all are not wholly muscular, but soon degenerate and show the presence of a considerable amount of fibrous tissue. In time this muscular organ tends to become a mere bag, an inert urinary receptacle, and yet so great is the recuperative power of the bladder that this

happens very rarely; in fact, I have only known one case where the bladder was absolutely incapable of recovery. Not only does the constant intravesical pressure set up changes such as these within the bladder, but, as might be expected, the pressure is felt up the ureters, in the pelvis of the kidney, and right into the very glomeruli. A chronic congestion of the kidney, followed by an interstitial nephritis, is gradually set up. Provided the cause is removed sufficiently early, one may still hope to bring about a resolution.

There is still another great danger to be added to all these, and that is the introduction of sepsis. Provided no catheter is passed, I am strongly of opinion that almost all these cases will remain aseptic to the end, but the time will surely come (if the patient live long enough, for some cases develop much more rapidly than others,) when retention will take place and catheterism become a necessity. So that between the Scylla of sepsis and the Charybdis of backward pressure, the unfortunate victim runs a great risk of becoming a total wreck.

Sepsis so introduced gives a result depending, as it does everywhere else, on the virulence of the organism and the resisting power of the individual. Cystitis, pyelitis, suppurative nephritis, very often rapidly supervene, and these are the unfortunates who are passed on to the urinary surgeon with a gentle request to relieve them of their trouble. The probability of a permanent relief in the grave is often only too well assured. If only these cases were handed to the surgeon when residual urine first becomes manifest, the result would be eminently satisfactory to all concerned. Here we have a well-known condition, a disease which will surely advance, and whose existence is fraught with grave danger, and danger too that is the more to be feared, because its onset is so insidious and its results so fatal. Why is it that these cases are allowed to drift from bad to worse, while their medical attendants watch symptoms and administer draughts of kind sympathy? I believe that the chief reasons are these: In the younger men the state of affairs is not discovered, or the patient is looked upon as a hypochondriac, and I could easily bring forward a few cases to illustrate this. In men getting up to the sixties and seventies there seem to be a sort of impression entertained by their medical attendants that they have had their time of it, and that it is not worth while risking any operative treatment, and finally there is the old story of the occasional individual who has done very well by simply carrying a catheter in his hat and lubricating it with his saliva when he wished to use it. As usual, the poor wretches who have died of secondary sepsis are quite forgotten, though their number is by no means small. The same sort of argument is applied to intestinal obstruction and scores of other troubles which may occasionally do well if left alone. The one successful issue has its memory kept green by frequent repetition, and the scores of mistakes or too late cases are early wrapped in sweet oblivion as not being very comforting companions. For my own own part, I have seen very few men who are content to put up with a catheter existence

for the rest of their days, and many more to whom the introduction of catheter life has meant an early introduction to another world; for it is not so easy to inculcate the principles of asepsis in every old layman. It is often difficult enough for a skilled person to avoid setting up a septic cystitis.

My contention is that the presence of residual urine is a menace to the health and life of the patient, and the line of treatment indicated is that which restores the patient to health with the least possible risk to his life. Even though the physician scoffs the idea of secondary complications, if the annoyance and the worry associated with catheter life are such as to make the patient's existence a curse to him, he has a perfect right to demand such treatment. The medicinal treatment of prostatic hypertrophy is confined to a few drugs. Strychnine and ergot, given for about two or three weeks at a time, are of some service in increasing the exclusive power of the bladder.

Boric acid in doses of ten grains three times daily, but not given for more than two weeks at a time, is of marked benefit in some cases of cystitis with alkaline urine. If continued longer, albumen may appear in the urine, and on two occasions the patients showed some mental peculiarities which disappeared when the drug was stopped.

Operative treatment has of late years received a considerable impetus, and much ingenuity has been exercised in order to bring about the desired result. I shall discuss some of the methods as briefly as possible.

Orchectomy is not all that can be desired, and I have almost abandoned mentioning it, simply because the thought of it is repulsive to most patients, and its suggestion in most instances is met with strong sentimental objections. The consensus of opinion is that orchectomy may or may not be followed by marked improvement. My own experience is limited to two cases with uniformly enlarged prostates. Both died within six months, but the amount of residual urine had decreased and the frequency was not so marked.

Vasectomy is still undergoing a trial, and too much cannot be said of it until our experience has become somewhat amplified.

A study of my own cases has led me to the opinion I am about to express. That vasectomy is always of some service, and that the improvement usually begins within one week, or even within twelve hours, after operation and may go on for some weeks or months.

That it is most suitable in early cases of slight enlargement of the prostate when the amount of residual urine is small, and also in cases where there is a greater general enlargement of the gland, and where, too, as far as can be ascertained, the structure is mainly adenoid.

That vasectomy will yield most disappointing results in cases where the examination with the cystoscope and sound shows a pedunculated or knob-like form of obstruction. In these cases the prostate felt per rectum may be very small.

In the case of large intravesical increase in the size of the prostate, all that can be hoped for is that catheterism

will be rendered more easy, as in many cases the prostate will by no means shrink sufficiently to permit of any thing approaching normal micturition.

In very old men, with symptoms of renal inadequacy or pyelitis, vasectomy is indicated, and may be greatly assisted by a perineal cystotomy. In fact, this combination restored absolutely normal urination in an old man of 71 years, who had retention and a previous history of frequency to the extent of micturating every twenty minutes. In cases of very great intravesical hypertrophy, vasectomy would be a valuable preliminary to prostatectomy. Indiscriminate vasectomy, without a careful selection of cases, will surely lead to disappointing results.

Perineal drainage for three or four weeks is said to, at times, reduce the size of the prostate. Of this I have grave doubts, it may do so at times; at all events, in two cases in which I practised this method, the whole trouble returned within three or four weeks. Perineal prostatectomy by perineal incision only seems to have a very limited field, for I fail to see how pedunculated growths can be relieved in that way. Even when assisted by suprapubic incision, and pressing the growth into the perineum, the operator cannot but fail in some of those cases which need removal the most. Then, too, suprapubic drainage will hardly suffice if marked sepsis is present.

The operation which I think would strike any unbiased observer as the most rational is a suprapubic cystotomy and removal, not of the whole bulk of the prostate, but simply of the obstructing portion, and at the same time to, as BELFIELD aptly suggests, make a low level channel up to the meatus, cutting away, so as to leave a deep, wide groove. After this the prostatic urethra must be carefully examined and obstructing nodes removed, and finally, by means of a perineal cystotomy, a 16 or 18 size metal tube may be introduced, and drainage carried on for about three weeks. This in itself will lead to most gratifying results. In old men a vasectomy may be performed a week or two earlier in order to make doubly sure. However, my very worst case, operated on five years ago, has done admirably without vasectomy. This man, about 52 years of age, had had a catheter life absolutely for two and-a-half years. He has remained with perfectly normal micturition up to the present, and his sexual powers, which were in abeyance, have returned. I might add that I have known this sexual impotence to occur in a man of 39 years, who suffered from prostatic hypertrophy and who underwent prostatectomy at 43 years. He had sought advice frequently, but was looked upon as a hypochondriac and his condition was not recognised, yet he had ten ounces of residual urine and a mob-like enlargement the size of a pigeon's egg. REGINALD HARRISON, who has performed a considerable number of vasectomies, says that orchectomy probably extinguishes both the desire and the power to procreate, while vasectomy extinguishes the power simply by division of the seminal canals. This is a question which will take time to settle, inasmuch as the sexual desire is sometimes completely absent in patients suffering from prostatic hypertrophy. It may be accepted, then, that in cases of prostatic hypertrophy when

sexual power is absent and has been absent for these years, the power may return after prostatectomy, and also that vasectomy does not necessarily destroy the sexual inclination. It is well known that castration in animals, while it certainly destroys the power to procreate, does not necessarily destroy the desire and the same holds good in man, and for this reason, in Eastern countries, eunuchs whose penes have been removed are more highly valued.

The character and the amount of the hypertrophy may be fairly accurately ascertained by a careful examination. Digital examination per rectum gives one some idea that the prostate is a fault, though it must be borne in mind that the size of the prostate felt per rectum is by no means an indication of the amount of obstruction. In fact, at times there may be a large amount of residual urine, and practically no increase in size felt per rectum. If there is a great amount of residual urine and a prostate large per rectum, together with a history of urinary trouble for some years, it is very likely, indeed, that the intravesical growth will be considerable. Sometimes a bimanual examination is possible, and more accurate information may be obtained. However, this method alone, which has been looked upon as one's only method, is of itself of no very great value. Suppose, however, we take a short beaked sound, after the style of a solid stone searcher (I prefer this to THOMPSON'S lighter hollow instrument), as soon as the educated touch allows the surgeon to be sure that he has gone the whole length of the urethra, the resistance to rotation immediately conveys the impression that an intravesical blockage is present. Then take a longer beaked sound, and if the growth be small, a larger range of movement will be experienced, whereas in cases where there is immense hypertrophy, a very much curved silver prostatic catheter will be tightly held. With a little practice, this method of examining will be found to convey a considerable amount of information. Next pass a soft or silver catheter, and the increased distance beyond the normal length of the urethra which it is needful to pass the catheter, is a guide as to the increase in length of the urethra, and, therefore, of the probable amount of obstruction which the intravesical growth has occasioned.

Examination with the cystoscope is of value just in those cases where other methods of examination are of least assistance, and where, too, it is of the most importance that an accurate diagnosis should be obtained. I refer to very early cases of prostatic hypertrophy. In very early cases the straight cystoscope is of most use, but in cases where the gland has already enlarged somewhat, the refracting instrument gives the greatest satisfaction. The post prostatic pouch in a uniformly enlarged prostate, and where there is a great amount of residual urine, is practically made up of the whole of the lower and posterior part of the bladder; but in cases where there is an irregular nodular increase in size, there is more often a distinct pocketing, though at the same time I have never known this to occur without the presence of stone. The post-prostatic pouch is caused then, in the first instance, partly by the irregular enlargement of the prostate, partly by the diminished resistance offered by the enfeebled perineum posterior to the prostate, and

partly to the presence of stone. The pathological possibilities then make it very evident that a cystoscopic examination under these circumstances is of great value for more reasons than one. If the growth be very large, the beak of the cystoscope presses against the mass, and only a dull red blaze is seen. On the whole, then, these different methods give the operator a considerable amount of information, and greatly assist him in the line of treatment he is to adopt.

So far I have operated for prostatic hypertrophy on twenty-three different occasions with two deaths, a little less than ten per cent. BELFIELD makes the mortality 13 per cent. I may mention that my method of operating has altered considerably. In some of my first cases the growth was removed by means of scissors through a silver speculum. By first examining the bladder and the growth through a windowed speculum, I was able to watch the interior of the bladder while distended, and see the altered appearance of the prostate as the bladder became emptied. Later on I found that the speculum was useless, except for small growths.

The dangers of prostatectomy are hæmorrhage, sepsis, respiratory troubles following the operation. Chloroform is the best anæsthetic, and it is less likely to give rise to trouble with the respiratory and renal organs than ether. Operative treatment in such subjects, enfeebled by the prolonged struggle against the inevitable, can by no means be attended with a very low mortality. In consequence of this, one's work is often considerably embarrassed. On one occasion the operation had to be completely abandoned, because, as soon as the conjunctival reflex became dulled, the pulse dropped to forty, and the patient nearly collapsed. A perineal cystotomy, followed by a vasectomy later on, was substituted and was attended with a fair result.

In opening the bladder suprapubically, no rectal bag is used, and the bladder is distended with eight or ten ounces of water by hydrostatic pressure in order to avoid rupturing the weakened bladder wall.

The suprapubic wound is made with as little tearing as possible and by clean cuts. The bladder is hooked up and held there, while a catgut suture is placed in the superior angle of the wound so as to fasten the bladder wall firmly to the anterior abdominal wall. Using the forefinger as a guide, one blade of the prostatectomy forceps is thrust into the prostatic urethra as far as possible; then, by forcibly closing, the lower blade sweeps upward and leaves a broad track ascending to the internal meatus. If this be not sufficient, lateral cuts need be made either with the same forceps or with a serrated scissors. It is very essential that these tools be blunt. The hæmorrhage may be checked at the time by the pressure of three fingers on the raw surface for a few minutes. If this be not sufficient, a swab dipped in equal parts of hazeline and water pressed on the spot has, in my experience, never failed. When the hæmorrhage has ceased, a perineal cystotomy is performed and a metal tube inserted. The bladder is then filled with gauze introduced through the suprapubic opening. The sides of the perineal tube are packed with gauze also. In six hours the gauze is removed from the suprapubic wound,

usually clearing the bladder of clots, which would otherwise have blocked the perineal drain. The perineal gauze packing is removed after two days.

My greatest trouble with these cases is at times a reactionary or more often a secondary hæmorrhage. For this reason careful nursing is required, and the possibility of fairly prompt assistance being rendered by the operator.

Every care is taken to conduct the operation in as cleanly a manner as possible, whether the urine is septic or otherwise, for a bladder may deal with its own organisms, but be completely incapacitated by the introduction of new varieties.

One of the two deaths I have spoken of occurred a week after operation, and was due to pneumonia. The patient was 62 years of age. His wound and his bladder were in a perfectly healthy condition when he died.

The other death was in a man of 66 years, sent me by Dr. KEAR, of Wollengong. His prostate was twice as large as the largest I have ever seen. There was no malignancy present, and the mass was made up mainly of adenoid tissue with a considerable amount of fibrous material. Catheterism was at times well nigh impossible, unless an over-curved prostatic catheter was used. The old man used to bend over, and, as it were, empty himself after he had passed a catheter. During the operation there was a fair amount of hæmorrhage, which was easily stopped; but when the gauze was removed ten hours after, the bleeding was fairly sharp, and the bladder quickly filled with clot. I was alone and had to anæsthetise and attend to the bladder at the same time. While doing this, a small puncture must have been made in the peritoneum in the upper angle, so that a small amount of bloody urine escaped into the peritoneal cavity. The patient had absolute suppression for twenty-four hours before he died, but I am not too sure that this was not due to the septic peritonitis.

One can hardly consider that a good result has been obtained, unless there is an absence of frequency of micturition and an absence of residual urine. This result has been obtained in all but four cases. One man, aged 62 years, led a catheter life absolutely for eighteen months. After the operation he was able to pass urine at times, and at other times resorted to the catheter. He died four years later, and *post-mortem* we found suppurative nephritis, but no sign of intravesical enlargement of the prostate.

Another patient was a drunken rascal who was killed six months after operation. I was never too sure about him, for, seeing that I was interested in him, he trimmed his sails to suit the breeze; however, I think it only fair to look upon him as but a partial success. The third patient is 68 years old. It is now seven months since operation, and he has a full, free stream, with a half to one ounce residual urine, and he gets up twice in the night. However, this is better than getting up every half hour, and with great pain and effort squeezing out a few drops at a time as was his custom for some months before. The fourth case was a man of 43 with a five years' history. When first seen he was accustomed to, as he put it, go about like a dog, his one thought being to

find a choice spot where he might micturate. Now this man has a full but feeble stream, and about three to four ounces of residual urine. He passes a catheter at bedtime, and then, as a rule, sleeps all night. I intend to look at this man's bladder again if possible, for his is the only case where it has appeared that the bladder did not empty itself because of its want of tone. Bladder atony is talked about a great deal, but the recuperative power of bladder muscle can be reckoned on with a tolerable degree of certainty. The term atony is more often an expression of the surgeon's inability to remove the obstruction to micturition.

I fear that I have already detained you rather long, but I hope that you will allow me to concentrate your attention on the precise state of affairs. Here we have a disease which is absolutely certain to steadily increase as the patient grows older, and so insidious and so far-reaching are the pathological changes to which it gives rise, that it is fair to say that every year, every month the sufferer lives, the less are the chances of his reaching a ripe old age. For some extraordinary reason there seems to be an aversion on the part of the profession to recommend operative treatment, particularly in the early stages, when most successful results may be obtained; and yet it is very evident that there is no other form of treatment which is productive of such great and lasting benefit to the patient. If only some thought were given to the dangers of delay, and the patient made aware of the grave consequences attending his procrastination, surgeons would be able by prompt treatment to effectually diminish the mortality. And remember, too, that this mortality is a very serious one, occurring, as it does, in men who, by their ripe experience and full intellectual vigour, have arrived at an age when they are of incalculable value to their fellows and to the State.

THE HOSPITALS OF JAPAN.*

By EDWD. C. REGISTER, M. D.,

President of the Board of Medical Examiners, State of North Carolina; Ex-President of the Charlotte Medical Society.

JAPAN has few hospitals—only ten. This is certainly a very small number when we consider that the country has a population of forty-five million and several large cities, one as large as Philadelphia, and three with five hundred thousand inhabitants each. It has a few cities with a hundred thousand people and no hospital at all. Tokyo, the capital of the nation, only has two—the Imperial University Hospital, and the General Hospital.

The former is the largest, and in many respects as good as any institution of the kind I have ever seen. It is as large as all the other hospitals of Japan put together. It is almost entirely maintained by the Government. It has eighty resident physicians and six hundred trained nurses. The average number of patients treated there is twenty-two hundred, and in the various out-door departments many thousand sick people are treated annually. The main building makes no pretensions to architectural beauty; it is a perfectly plain two-storied brick and stone structure, a hundred feet wide and four

hundred feet long. It is located in the middle of a beautiful park, with its lawns, green terraces, tropical trees and plants, playing fountains, and here and there, artistically arranged and various shaped, are comfortable looking rests or seats, some in the sun, others in the shade, many grouped around fountains, while some are scattered along little rippling streams. Here landscape gardening has reached the highest state of development.

This building is only used for offices, reception rooms, parlours, library, museum, billiard rooms, drug rooms, and the microscopical department. This microscopical laboratory is the largest and most complete I have ever seen. Here I had the pleasure of meeting the celebrated Dr. KITASATO, who was sent several years ago to China and India by the Japanese Government to investigate the bubonic plague, and who successfully isolated the bacillus of this disease. He is evidently a very scientific man and an accomplished physician.

With the exception of the operating rooms, all the other buildings connected with this institution are one-story high, made of wood, and join the rear of the large stone building, leading off from it at right angles and parallel with each other. They are four in number, and extend back possibly five hundred feet. About every hundred feet they are connected with each other by covered bridges with glass sides. On both sides of all the wooden buildings there is a narrow verandah, which is usually closed by sliding glass doors. All the wooden buildings are painted white, inside as well as outside.

The physicians and nurses wear white uniforms, European in style. With all this perfectly clean and glittering glass, surrounded by so many flowers and shades, with the sun's rays peeping in here and there, it certainly looks beautiful and healthy.

Connected with these buildings there is one for the physicians, one for the nurses, and one for the servants, a department for lying-in patients, one for contagious diseases, and one for the insane. The architecture of them all is uniform, the distance between them and the way they are connected are all identically alike. Several other buildings used for minor purposes are scattered about over the park, making a perfect net-work of houses, all conveniently arranged and magnificently kept.

The surgical department is a large two-storied stone structure, plain, but rather handsome. It stands off by itself. It is a comparatively new building, has only been finished about a year. It has several operating rooms and amphitheatres, and can take care of about two hundred surgical cases at a time. Minor cases are usually cared for in the main hospital building.

Surgeons in this country are very conservative, a great deal more so than in America. Patients are slow to consent to be operated on. They have to know that it is their last chance before they will consent. This is not because they are cowards, or not as brave as other people are. It is because they have acquired, and to some extent inherited, a prejudice against surgery. This is not peculiar to the Japanese; it is characteristic of all oriental

* Reproduced from the *Charlotte Medical Journal*.

semi-civilized people where Buddhism exist. Some of its former teachings prejudiced the people against surgical operations. To cause bloodshed, except when favored by their god of war, was a great wrong. There was no exception to this rule, even in their relations to the lower animals. To a great extent this prejudice is gradually being overcome.

This makes the surgical work of this great hospital rather small when compared with its other departments. It has septic as well as aseptic operating rooms. In the former they pay very little attention to cleanliness, but in the aseptic operating rooms everything glitters and is in perfect order, and is, no doubt, thoroughly aseptic. In and around these operating rooms you can see large and beautifully arranged instrument cabinets filled with every apparatus and appliance known in connection with modern surgery. The most of them are made in Japan, but they import some of them from Germany, England, and a few from America. The wards were overcrowded and the rooms for single patients are very small, not over ten feet square, and, strange to say, in an institution so modern and so well equipped in so many respects, would furnish their first-class rooms, just as they are in a hotel, with velvet carpets, rugs, curtains, cloth covered sofas and chairs.

The crowding of their wards to overflowing seemed to me cruel, yet the patients looked comfortable, and many of them happy. Both sexes were often in the same ward, being bathed and dressed at the same time, without any embarrassment to any one.

It has been said that nudeness can be seen in Japan more than any other place in the world, but it is never looked at. The correctness of this was impressed upon me when going through the wards of this hospital.

While the surgeons in this country are very conservative, they are not timid. Many of them do excellent work. I spent a day in this Imperial University Hospital, saw several operations, and I observed nothing that was not intelligently and skillfully done. One young assistant surgeon, who could speak a little English, told me that he had used the MURPHY button seventeen times without a single failure, and that the chief surgeon had performed seven laparotomies for perforation in typhoid fever and had saved three cases.

I was astonished to see so many cases of tuberculosis in this hospital. Forty per cent. of the inmates had tuberculosis. Going back over the records for five years shows that thirty-five per cent. of all cases admitted were tuberculous. This great susceptibility to tuberculosis on the part of the Japanese was something new to me. Statistics show that thirty-two per cent. of all deaths in Japan is due to tuberculosis. In America it is less than fifteen per cent., and we are justly alarmed.

Rheumatism was the next most prevalent disease I found in this hospital, and skin diseases were very rare.

It is easy to observe the causes of consumption in this country. Leaving out all hereditary tendencies, the habits and customs of the people would naturally cause it to develop. Their houses are always built on the ground, uniformly one-story high, few windows and they are like pigeon-holes. They have few facilities for

heating their houses. Even in the coldest weather they will do without fire, consequently their homes are cold, damp and dark, just the conditions and surroundings to favor the development of tuberculosis. Besides, a Japanese seldom has anything on his floor. Sometimes among the better classes they will use a straw matting, something like we use in the summer. They always take off their sandals or wooden shoes at the door and wear nothing on their feet while in the house, no matter how cold and damp it is. With these conditions and methods of living, it is not surprising that consumption and rheumatism are so prevalent.

The absence of skin diseases among the Japanese is evidently due to their cleanliness. I suppose they bathe more than any people in the world. There are over eleven hundred public baths in Tokyo alone, and it is estimated that four hundred thousand people patronize these baths daily. They use the water a great deal hotter than we do in America, seldom under 110 deg. Fah. and often 118 or 120 deg. Fah., and remain in the bath for hours, especially in the winter, as it is a cheap way to keep warm. It costs them one sen for each bath, about a half cent in American money.

I noticed in the Imperial University Hospital that they were giving creosote in pulmonary tuberculosis in seventy-five drop doses, three times a day, injecting serums made in Germany, and experimenting with some made by themselves. They were using inhalers and sprays just as we do, and I suppose with about the same success.

The General Hospital at Tokyo is quite a nice institution. It is partly under the control of the Red Cross Society of Japan. It has twenty resident physicians and two hundred trained nurses. Its average attendance is seven hundred, besides thousands of sick people are treated in its various out-door departments. The buildings are old and the grounds have an appearance of dampness and neglect, a lack of brightness that does not very favorably impress a visitor. The general arrangements of the buildings are on the cottage plan, with one very large brick building, which is used for the officials of the hospital. The operating rooms are fairly well arranged and equipped. They will compare very favorably with some of our large hospitals.

The Yokohama Hospital is small and badly arranged, and evidently poorly managed. It is attended by a staff of three physicians, who live in the city. The building is old, damp and dark, surrounded by no gardens or yard.

Kioto, the old capital of Japan, a city of six hundred thousand population, only has one good hospital. This is the Kioto Hospital Medical School. It is a hospital and medical college combined. They are under one management and the buildings are connected. The grounds cover ten acres and are beautiful. The buildings cover about three acres, and all but one of them are made of wood, and are two stories high. The main building is three stories high, built of stone, and is a new and handsome structure. Twenty-eight physicians are connected with this school and hospital. Twenty-one students were graduated last March. All the physicians live in little cottages on the hospital grounds, and the students' room in the main building. Three physicians from Germany

and one from Holland teach in the medical department. It is partly supported by the city Government.

About five years ago all of its buildings were destroyed by fire, and they have only in the last year finished rebuilding them, consequently everything is new and up-to-date. They have two operating rooms not connected with amphitheatre halls. I have never seen anywhere two operating rooms more conveniently arranged or more thoroughly equipped. Here pharmacy is taught as well as medicine.

Several years ago the medical school was divided into a medical school proper and a preparatory medical school. When a student begins with the preparatory studies, it takes him twelve years to graduate. This hospital has the most complete hydrotherapeutic establishment of any in Japan. It occupies the basement of the main building and is thoroughly modern in every respect. It comprises a Turkish bath, vapor bath, CHASCO's douche, electric baths, sulphur baths, iron baths, and a suite of hot and cold baths with sprays. Annexed to this department is a completely fitted medical gymnasium.

The Doeshesha Hospital at Kioto is kept up by a Canadian mission. It has no resident physician and only one trained nurse, who is from New York. Three physicians attend the hospital, each a week at a time, in rotation. They have six or eight beds fixed up especially for foreigners, and many Europeans and Americans have been cared for there.

Nagoya, a city of two hundred thousand population, has only one small hospital. It is a private institution, run by three rather bright, enterprising young Japanese physicians. The buildings were not originally constructed for the purpose for which they are now used. The grounds are small, no lawns, and few shades. The surroundings had a dilapidated, neglected look, and the inside was dark, damp and had a mouldy smell. Their little operating room looked neat, but was poorly furnished. They had sixteen patients, but none of them were surgical cases.

Osaka has a city hospital. I did not have an opportunity to visit it.

Kobe and Nagasaki each has a hospital. The one at Kobe interested me greatly. Its buildings are very large and it is evidently well patronised. They have eighty trained nurses and an average of two hundred and fifty patients. Its reception rooms for out-door patients were crowded to overflowing. The general operating room for third class patients interested me more than anything surgical I have seen in Japan. Here seven operations in one room were being performed at one time. It reminded me of BARNUM's circus, it had so many attractions going on at one time. It had no preparatory ante-room for undressing or dressing. The anæsthetic was administered and, in fact, everything connected with each case was done in this one room. Female as well as male patients were admitted and treated or operated on as their time came. I noticed one surgeon was operating for urethral stricture in the male, another setting a broken arm for a little boy, while another was doing gynecological work. Only seven physicians remain in

the hospital at night, all the others live in different parts of the city. I could not learn how many were connected with it, or how they were appointed.

The Red Cross Society has recently established a hospital in Kobe. The day I visited it, it only had three patients, one nurse, and no resident physician. I did not see the hospital at Nagasaki. I understand it is used partly for the Japanese navy. America, England and Germany all have naval hospitals at Yokohama.

I suppose it might be said that there are a great many other hospitals in Japan that I have not mentioned. There are many little mission hospitals where they are doing dispensary work, and often they have a few beds where they take care of three or four patients at a time. A great many physicians have their own little private hospitals. I visited several of them. They are so small, have so few facilities, and are so poorly patronized, that they are not recognized by the local city directories. The Japanese army has several hospitals. I did not of course visit them.

The Imperial Hospital at Tokyo, that I described at first, seems to be the medical centre of Japan. Nearly all the best people throughout the country, when they have to submit to any important surgical operation, or have any serious complicated disease, go there. The distance from any part of Japan to Tokyo is short, the railroad facilities are good, and the fare is less than a cent a mile. This makes the surgeons, physicians and specialists there very accessible, and they are patronised more than they are in any other part of the country.

The Japanese physician is peculiarly fitted for certain departments of medicine. It is characteristic of the best element of the race to be industrious, deliberate, careful, and he loves more than anything else to, work for days, weeks and even months at a single little thing. Mr. East certainly knew the people well when he tersely said that they seemed to be "great in small things and small in great things." I notice that they are enthusiastic workers in microscopy, their patience seems never to tire; they will prepare slide after slide, specimen after specimen, and their interest never sags. This kind of work suits them.

In surgery, the smaller and more delicate and difficult the operation is, the more it interests them. The average Japanese physician would rather see a cataract operation than a hysterectomy. To watch them prepare for an operation, the time they seemingly throw away arranging little things, the minute instructions they give their assistants and nurses, even in minor surgical cases and to observe them fix, with so much care and deliberation, every table and tray, every knife and sponge, perfectly oblivious to time, is as amusing as it is tiresome to the hustling restless and impatient American.

(We had the pleasure of meeting Dr. REGISTER, the genial and accomplished Editor of the *Charlotte Medical Journal*, during his tour in the East—Ed., I. M. R.

SEXUAL INTEMPERANCE.*

BY JENNIE G. DEENAN, M.D.,

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AT the present time we are too apt to confine our remarks to liquor intemperance, and overlook the fact that there are other forms of intemperance, which are just as pernicious to the welfare of man. Either from ignorance, or from false modesty, we have allowed this evil of sexual intemperance to pass un molested. Under the cover of a legal marriage, it has been at liberty to cause all manner of suffering without being attacked by those who ought to and do have the health of the world in their hands. Its evils have not been held up to the public gaze like those of drink, food, dress, and pleasure intemperance. Nay, many of the reformers in these other lines are as guilty of this one evil as those who do not in any respect uphold the tenets of temperance. This has been the one condition in which man has been allowed free exercise of his own will. It has been only when such intemperance has occurred outside the sacred precincts of matrimony that the public voice has been raised in disapproval. Two persons legally united are free to injure each other and their offspring as much as they may have a mind to, and it is all right. The legal union covers a multitude of sins. A woman may be invalidated for life, may be sent to an almshouse asylum—it is all right. A man may be sexually lower than the most degenerate brute, and yet be all right in the eyes of the public so long as this intemperance is exercised within the pale of holy matrimony. Ignorance is at the root of this evil. Education, as in all other reforms, will alone remedy the evil. Until men and women fully realise the physiological function which they are violating continually, no remedy can be expected. Prohibition, as in all other reforms, will fail. People must be taught that it is a function for the propagation of species alone, and not for pleasure. It is like digestion, a process by which the physical body is supplied with food, which renders it capable of performing its various functions, and not only one by which the palate is tickled and the person pleased. A certain amount of satisfaction must attend these functions, but they were not created for this pleasure alone. A meal under pleasant circumstances is more beneficial than under those that are disagreeable; a sexual union under an atmosphere of love is more beneficial than one under compulsion; but the end of neither is pleasure. Ignorance is at the root of this evil. Two persons utterly devoid of any knowledge of this physical function are united in marriage. Why ignorant? Because knowledge is immediate? Nay, rather, is not such ignorance vulgar? Does it not lead to lower, degenerate, brutish types of humanity? These persons oftentimes having no intellectual or spiritual affinity—for few marriages are sanctioned by the High Courts of Heaven, mercenary plans too often intervene for that—have only a physical affinity, and in the abuse of this function seek that enjoyment which higher sources should provide. Persons satisfied in their intellectual and spiritual life are too free to be slaves to the abuse of a physical function.

This sexual function is one which ought, like all other functions, to be performed in accordance with natural

laws. Abnormally exercised, it calls for more and more, and ignominious credit this insatiable desire to the strong love of the individuals. As well say that an abnormal stomach, which ever and ever craves for more food, while unable to digest that which it has already received, is a sign of love.

The abuse of this function is one surrounded by so much delicacy that thus far physicians have failed to attack it. They have neglected to look at it from a philosophical standpoint. A certain sacredness—false, though, as it has not striven for the best use of it—has surrounded it. The result of sexual union is sacred, in that it embodies the God in man, and is full of promise for the future; but the act itself is only a physical one. This sacredness has not been guarded as it ought to have been, for, if this act is carried out under the evils of intemperance, how can the result be perfect? In lower animal life this function is regularly carried out according to law. Man is the only male who abuses himself and his female. He knows no law in this respect, but the dictates of an ignorant desire. If in the lower animals there is a time for sexual union, why not so with man? The physiology of the female generative organs points to such an observance of law. The pregnant woman is, under normal circumstances, incapable of fully engaging in the normal act. She has ovaries which are not functionally active, a uterus which is fully occupied with nourishing and housing the fetus and sealed to invasion by male germs. Why compel her to engage in that for which her organs are not in a state to reciprocate? Then, after the delivery of her offspring, these organs are still in a state of rest until that offspring is capable of subsisting on other than mother's food. No clearer proof need be advanced than these signs of Nature's desire for sexual rest during this period. What need of the often-asked question, Should intercourse be discontinued during pregnancy? Nature answers it. It is only human selfishness which makes such a question possible.

By observance of this law there will be fewer invalidated women, women who say "I have not known a day's health since I was married," fewer inmates for asylums, fewer deformed children, and, on the other side, fewer weak-willed men. As the physical nature is made to obey its laws, it will be healthier, and from its more perfect condition will arise stronger intellectuality and spirituality. The population, instead of decreasing, will increase. Women with healthy bodies will not dread maternity. No longer slaves to an abnormal appetite, they will look on this physical function, as they do on those of eating and walking, as a necessary part of their lives. The physician will no longer be implored to put the stamp of Cain on his brow in order to deliver them from a burden which they are unfitted by a misuse of this function to bear. This desire to rid herself of this function of propagating her species has had most direful effects on woman's nature. It has made her cruel and cunning. Women have ever sought to defy man's oppressive power by cunning, and as long as she is oppressed, she will. Women who would be horrified at a murder are willing to murder that little life within them, pleading that the being is not yet alive. Not woman alone, but man also. A woman will come to a physician, desiring to be relieved of her undesired offspring with the oft-repeated remark: "My husband does not want me to have any more children." Yes; but that selfish husband has not will-power to properly recognise that he is missing a function. Families can be regulated by an exercise of will and reason. The world to-day is full of those who are trying to regulate family, not by an observance of natural law, but rather by artificial means which are sources of danger. A function can only be regulated by an adherence to the law which governs it. Knowledge alone will be the remedy for this evil, which should be called nothing less than legal prostitution.

* Reproduced from the New York Medical Record.

A MIRROR OF PRACTICE.

CASE OF PROLONGED MELANCHOLIC STUPOR: TREATMENT BY THYROID EXTRACT: PARTIAL RECOVERY.*

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Lunatic Hospital, Netley.

GUNNER H. C. was admitted to hospital in India, May 1897, for melancholia.

His condition at that time was noted "a most melancholic disposition, mopes all day long. Some days he will speak, other days he will take no notice of anyone." He was invalided, and arrived at Netley on November 5th, 1897.

His condition then was "very feeble and prostrate, extremities cold, pulse slow and weak, respirations shallow and slow, was fed all the way home by a tube (his stuporous condition appears to have commenced on the homeward voyage), but since admission takes his nourishment. He lies quite still with his eyes shut, lost to all the world, and vouchsafes no sign of intelligence."

By February 2nd, 1898, his state of stupor had become more profound. He frequently required a catheter and purgatives; he became more emaciated and feeble, and was resistive to feeding, but only so far as his jaws were concerned. From this time on, and for two years and a-half, he was fed twice a day with the "double spoon"—that is, one tablespoon was forced between the teeth, while with a second the food was poured into the first; as soon as the food reached the back of the mouth, it was swallowed. With this exception every voluntary function of the body seemed to be in complete abeyance.

On March 4th, 1898, his dietary—which already consisted of eggs, milk, beef-tea, and brandy—was increased by the addition of fresh meat juice, pounded vegetables, and 4 ozs. of sugar daily. He had also $\frac{1}{2}$ oz. of cod-liver oil and M_{xx} syrupi ferri atrorhinei et quin. phosph. (Eaton's) twice daily, with faradism, massage, and injection of cod-liver oil once daily. This dietary and treatment was continued with but slight variation for the next two years. His weight at this time was only 6 st. $\frac{1}{2}$ lb. His plantar and nasal reflexes were absent, but the patellar reflexes were exaggerated.

Towards the end of March he has noticed occasionally to be resistive with both head and arms; throughout the whole course of the disease he was resistive with his jaws and eyes. The latter were habitually closed, and if forcibly opened, were turned up so that only the sclerotic could be seen. He was nine months in hospital before his iris was ever seen by me. On April 7th he weighed 6 st. $\frac{1}{2}$ lbs, being an increase of 5 lbs. On May 6th he weighed 7 st., an increase of 13 $\frac{1}{2}$ lbs. In June he was carried out of doors, reclining in an easy chair, in the garden for about seven hours daily, and thus he spent this long summer and the succeeding one,

with, at all events, obvious improvement to his complexion. In July he was seen to scratch his head twice, and on one occasion to raise his arm up. In August he was reported to have opened his eyes one night, stretched himself, and said "Oh! dear." In November he was reported to be inclined to assist a little while being dressed and washed. His weight was then 8 st. 13 $\frac{1}{2}$ lbs., an increase since admission of 2 st. 13 lbs.

In January 1899 his plantar and abdominal reflexes were found to be normal, but there was still absence of any nasal reflex, and he had become very sensitive to faradism, writhing and rolling about the bed during its use. His muscles had filled out fairly well.

Throughout the year 1899 there was little change in his condition. In May it was found he would keep his arms up for some time if ordered to do so, and in June he was seen by another patient to sit up in bed at night and look round.

On January 20th, 1900, the administration of thyroid extract was commenced. One tablet = 5 grs. (Burroughs, Wellcome and Co.) being given night and morning. His weight was then 9 st. $\frac{1}{2}$ lbs., pulse 80, temperature 97°.

On February 4th he was reported to be more conscious, opened his eyes a few times, and once scratched his face. On February 15th his pulse was full and bounding, 100, heart sounds tumultuous, no rise of temperature. The tablets were reduced to one daily. On March 2nd he had lost 3 lbs. in weight since the thyroid treatment was commenced. For the first time I caught his eye, momentarily, looking at me. The tablets were again increased to three daily. On March 25th I saw him looking intelligently about the room. During May he was frequently seen with his eyes open.

On July 13th he took a glass of lemonade in his hand and slowly drank it. From this time on, the feeding with the "double spoon" was discontinued, and he fed himself. On July 14th he wrote with a pencil on paper a lot of disconnected nonsense. He was conscious of everything going on, and looked at pictures, but did not speak at all.

He continued to improve slowly day by day. He wrote a fairly intelligent letter to his mother, but most of his writing was done at great speed, and consisted of long words, fairly correctly spelt, but disconnected. He would spend hours at this writing, in fact, as long as he was supplied with paper. When asked why he did not speak, he wrote: "I find a difficulty, Sir." On August 9th he began to talk, but his conversation was incoherent. He had lost 14 lbs. in weight since the thyroid treatment was begun. On August 31st the thyroid extract, which had been discontinued for a couple of weeks, was again administered, two tablets daily, but was finally discontinued three weeks later. He was still unable to use his legs.

On September 7th he began to walk about with the aid of a stick. From this time on his physical condition improved rapidly. His weight increased to 11 st. 2 lbs., being at the time of his discharge 5 st. 7 $\frac{1}{2}$ lbs. heavier than on admission. He by degrees completely recovered

* Reproduced from the British Medical Journal by request.

his walking power, but there was but little improvement in his mental condition. He remained a good deal demented and wandering generally in conversation, but occasionally made very shrewd remarks.

He was discharged to the care of his friends on December 4th, 1900, as a harmless lunatic, but after some weeks at home he was found to be beyond the control of his parents, insisting on walking off long distances by himself and objecting to being brought back, and he had finally to be sent to an asylum.

Remarks—I think there can be no question that his recovery from his so-called "trance" was directly due to the administration of the thyroid extract. Of this preparation he had in all close on 600 tablets, and only on one occasion—at the commencement of the treatment—did it cause any functional disturbance. As to the amount of consciousness that was present during his prolonged state of stupor (over two and-a-half years) it was difficult to judge. He could give little account of himself; he said on one occasion that he "had been flying around the moon." He spontaneously recalled the names of two attendants who had looked after him, and had left before he began to recover; and he also said he recollected the several classes of surgeons on probation who attended the hospital, session by session, coming to see him.

This case is remarkably similar in almost every particular to that of "F. O.," published by Dr. CUSTON in his work on *Mental Diseases*, page 313, fourth edition. In his case the state of stupor lasted for three years.

TUBAL PREGNANCY IN A WOMAN OF FORTY-SEVEN.*

BY ARTHUR ANDREWS, M.R.C.S., L.S.A.,
Albury, N. S. W.

SEIZING the subject of the following rough notes to-day, I thought they might be of some interest to your readers. I have hitherto been unable to find any account of this accident at such an advanced age, but my access to books is limited so far from a metropolis. Her great bulk, combined with her age, prevented a clear diagnosis being made at first. The successful result is all the more gratifying on that account. The patient, a short woman, 5 ft. 4 in. in height, and weighing nearly 15 stone, consulted me on July 10th, 1898. She had been suffering from a constant sanguineous discharge for five weeks, following on an absence of menstruation for two months. The discharge was accompanied by much pain and was sometimes clotted. She was occasionally sick in the mornings and believed herself to be miscarrying. She had had seven children, the last seven years before. On examination I found the uterus enlarged and the os patulous, but owing to her stoutness I was unable to define the tubes and ovaries. The hæmorrhage being free, I advised curetting. She went into a private hospital, and on the 11th I curetted under chloroform. A quantity of debris was scraped away, though nothing definite without microscopic examination, which I was not able to secure at the time. While under the æsthetic, it was still impossible to define the tubes, etc. After curetting she was much relieved, and the discharge almost ceased, the dyspeptic symptoms disappeared, and she was generally better. The improvement continued till the 19th, when she was seized with sharp pain in the left flank and groin, with tenderness, but no perceptible fulness externally or per vaginam. The pain was relieved by leeches and fomenta.

On the 21st the pain returned with swelling above the pubes and towards the left groin. Free hæmorrhage recurred from the uterus, and she was much distressed.

The bowels acted well, but the swelling and pain increasing, laparotomy was decided on.

At 10 A.M. on the 22nd I operated, assisted by Dr. KENNEDY, Dr. O'SHAUGHNESSY giving chloroform. On opening the peritoneum a large quantity of clots and fluid blood escaped, and the nature of the case was soon apparent. The left fallopian tube was much enlarged and ruptured, and an ovum the size of a hen's egg was partially protruded from the rupture. The tube was ligatured and removed, and an attempt to wash out the loose clots and blood with boracic lotion made, but unsuccessfully. I therefore inserted a glass drainage tube, and closed the wound round it as well as possible. The manipulations were difficult, as there were over three inches of fat in the abdominal wall. She bore the operation fairly well, and had no vomiting after. The tube was removed after 36 hours, the bowels were opened on the third day, the temperature only once reached 100°.

On the 28th some decomposing clots were discharged from the track of the tube. This discharged till August 8th, when the pedicle ligature was thrown off and the wound closed at once.

She was up on the 13th and returned home at the end of the month. Six months after, two of the silk stitches used for the deep fascia came away, and two more eight months later. She is now in good health, with the exception of a limited hernia of the scar easily controlled by a belt. She works hard and is still menstruating regularly.

Tubal pregnancy, though not rare, is not common, and yet frequent enough to be ever present to one's mind. I have operated for it 15 times in the last six or seven years, three times during 1900, so that I might expect to recognise it when present. In this case the failure in diagnosis was entirely due to her size preventing full examination, though I do not doubt that her age assisted to obscure the real complaint. One thing this case thoroughly impressed on me was the harm which often follows the use of a drainage tube, and I have scarcely used one since. I have had no reason to regret it, and with a large number of abdominal sections since have had no trouble with the scar.

SURVIVAL OF A PREMATURE CHILD WEIGHING TWO POUNDS.*

BY ROBERT JARDINE, M.D.,

Senior Physician to Glasgow Maternity Hospital.

ON January 31st, 1901, a female child, 13 inches long and weighing two lbs., was born in the Glasgow Maternity Hospital. The mother, a multipara, had had several miscarriages previously. Her last menstrual period had ended on July 15th, 1900, so that gestation could not have lasted more than six and-a-half months. The child was quite lively, and at once sucked anything put into its mouth, but the mother's nipple was too large for it to grasp. It fed readily from a spoon, but could only take about a drachm at a time. It was kept in the incubator at a temperature of about 95°, and fed every hour with mother's milk. At the end of a fortnight it had lost $\frac{1}{2}$ lb. in weight. For the next two weeks the weight remained the same. It then gained 12 oz., but a few days later went back to $1\frac{1}{2}$ lb. It has again begun to gain weight, and now weighs 2 lbs. It is quite lively, and moves its limbs vigorously when being washed. We have a considerable number of premature children to deal with every year. My experience has been that any under 3 lbs. in weight, even after the seventh month of gestation, were not likely to survive. This one, however, has proved an exception to this rule. If she lives, it will be interesting to note whether or no she is a still-born.

* Reproduced from the *Australasian Medical Gazette* by request.

* Reproduced from the *British Medical Journal* by request.

Indian Medical Record.

8th May 1901.

METHODS AT PRESENT AVAILABLE FOR THE TREATMENT OF SIMPLE (SUBCUTANEOUS) FRACTURES.

In a paper read before the last meeting of the British Medical Association in the section on Surgery, details of which appear in a recent number of the *British Medical Journal*, Mr. WILLIAM H. BENNETT, F.R.C.S., Senior Surgeon at St. George's Hospital, discussed the present methods of treatment of simple (subcutaneous) fractures. The lecturer's deductions were drawn from the answers to a series of questions circulated freely amongst the known surgeons of London, the Provinces, Scotland and Ireland, and are worthy of consideration as embodying the latest views on the subject, and as differing from some of the ordinary tenets prescribed by the usual textbooks. We extract the essentials. Setting aside the surgeons in the small minority who considered practically all fractures of the long bones as suitable for treatment by operation, and those who under no circumstances saw any justification for operation, there was a large intermediate class of practitioners who, whilst under ordinary circumstances adopted non-operative treatment, were open under certain conditions to use the operative treatment, provided that the circumstances of the patient and of the practitioners, and the nature of the case, rendered such a proceeding justifiable. Speaking generally, the routine treatment with this large intermediate class consisted of three main varieties: (1) The immediate application of some immoveable splint or apparatus, e.g., plaster of Paris. (2) Splints which were easily removable for the purpose of examination or for the employment of passive movement or massage. (3) The rejection of splints altogether for any considerable period.

The use of passive movements.—This was a method of recent growth, and helped to obviate the matting together of parts. At present it was used in 64 per cent. of cases in the provinces, 90 per cent. in London, and 85 per cent. in Scotland and Ireland. It consisted of (a) immediate—within the first two days; (b) intermediate—within two to 14 days; and (c) remote movements—at a later period. Those surgeons who used movements in the early stage were able to report a more rapid recovery of their patients: this coincided with the speaker's own views and experience. There was a steady inclination to avoid set splints, such as plaster of Paris, and to use moveable splints which gave easy access to the part. Some few surgeons preferred active movements: these were preferable, perhaps, when union was sufficiently sound; but in the early stages passive movements were undoubtedly safer and equally efficacious.

Operative Treatment.—Taking the evidence of all the surgeons with practical experience of this method,

with the exception of two, the evidence was generally speaking, adverse, excepting in some special cases, such as certain oblique and spiral fractures of the leg, and in some fractures in the immediate neighbourhood of certain joints, notably the elbow, and in those which were otherwise unmanageable. The utility and scope of the method was therefore somewhat limited. As to the means employed for the fixation of the bones by operation, screws and ivory pegs were condemned by the majority, wire being regarded as preferable. This accorded with the speaker's own experience. Screws invariably gave rise to much irritation, necessitating subsequent removal, the reason not being quite clear—the cause probably lay in the natural tendency of the thread of the screw to cause softening of the bone around and subsequent loosening of the screw itself.

Fractures of the Patella and Olecranon.—Here operation has been most extensively used. The practice of wiring the patella as a routine treatment was by no means as universal as one would imagine, and the operation of suturing was by no means so free from risk, both to limb and to life, as would be gathered from recorded cases and in general conversation. The majority of surgeons were influenced in wiring by the circumstances of age (50 years being the limit), general health and the amount of separation (if more than $\frac{1}{2}$ to $\frac{3}{4}$ of an inch). Speaking generally, the operation was performed either as soon as possible after the injury, or after an interval of from three to ten days. The majority operated on the average on the seventh day. The material used for the suture was generally stout silver wire; a few surgeons used silk or kangaroo tendon. By far the most satisfactory operation was the open method of LISTER, the flap being turned up from one or the other side, instead of the vertical median incision originally used. The period of recovery varied from three to six weeks—in one case eight months: the sooner passive movement was employed, the sooner did the patient get about. The majority of surgeons commenced these movements a little before or after the fourteenth day. The percentage of recoveries within six weeks in London (where passive movement was adopted much earlier) was much larger than in the country. As to the risks and imperfections of the treatment, it seemed to matter very little whether the operation was the open one or the subcutaneous circumpatellar method, or some other plan. The main disasters were death, suppurative with disorganization of the joint, and complete ankylosis, necessitating often amputation, partial ankylosis, constantly recurring arthritis necessitating the removal of the wire, necrosis, local suppurative and other minor evils. The fact that such disasters and imperfections happened did not in itself negative the scientific value of the operation as such, but it limited the scope of its legitimate employment to a great extent by the general body of practitioners—a point to which the speaker attached special importance, as the real value of a treatment depended not upon the success which a few practitioners might be able to achieve, but upon the results which followed at the hands of the general body of surgeons who had opportu-

nities for practising the treatment. In the speaker's opinion, the treatment of fracture of the patella would resolve itself into an early resort to passive movement; and operations, being reserved for the severest cases, would become less common, for, in many cases, equally good results were obtainable without operation, and therefore without the risk that operation entailed. The methods of treatment without operation were: (a) Fixation by removeable splints for long periods; (b) fixation by splint *plus* elastic traction; and (c) the immediate application of irremoveable splints, such as plaster of Paris and the like.

Fracture of the Olecranon.—Operation was rather the exception than the rule: ultimate bony union was usually complete. Complete ankylosis at the elbow had more than once followed where this fracture had been treated by operation.

Use of massage and passive movement in recent fractures.—Of those who had tried it, the majority were in favour and spoke in strong terms of approval: a minority were opposed to it. Mr. BENNETT believed that the future treatment of fractures would resolve itself, with such modifications as the nature of the case and the circumstances of the practitioner might suggest, into the very early use of the passive movements, in order to prevent adhesions and matting of the parts about the fracture, and to the practice of massage for the purpose of preventing the wasting of the muscles and for the promotion of rapid absorption of the effused products.

The diminution of wage-earning capacity following upon fractures.—The result of the replies elicited on this point, especially from surgeons practising in mining and colliery districts and among sailors, was that real disability following upon fractures was by no means so great as one would be led to suppose from recent writings on the subject. It would practically be found, thought Mr. BENNETT, that, if a large number of patients were examined, the vast majority of disabilities after fracture was due, not to bad union of bone, but to matting of the parts about the fracture and about the joints immediately concerned: that is, if early passive movements were methodically used, so that all chance of adhesion of the parts about the fracture was avoided, very much less would be heard about the disabilities in such cases than is heard now: the mere fact that the bones of a broken limb did not unite symmetrically and quite in the straight line was not of necessity, in itself, any reason whatever why disability should occur, or why the wage-earning power of the individual should be diminished. The conclusions framed from Mr. BENNETT's investigations were: (1) The treatment of simple fractures at present, although less stereotyped than hitherto, is still conducted generally too much upon lines which are traditional rather than rational. (2) The use of splints for long periods was disadvantageous, especially in the form of irremoveable appliances, such as plaster of Paris and the like. (3) Speaking generally, the earlier movements of the joints above and below the fracture in a long bone are used, the shorter is the time occupied in recovery. (4) The

legitimate scope of the operative treatment of simple fracture is limited, and should be confined to (a) cases which are otherwise unmanageable; (b) special cases, such, for example, as certain spiral and oblique fractures, mainly of the tibia; and (c) certain fractures near joints in adults, notably of the humerus at the elbow. (5) The operative treatment of recent fracture of the patella is by no means so generally satisfactory, or so free from risk, as published cases would tend to show: and, further, in cases in which the separation of the fragments does not exceed half or even three-quarters of an inch, as good results for practical purposes are usually obtainable without operation, although less rapidly. (6) The use of massage and passive movements immediately, in simple fracture, when the circumstances of the patient and of the practitioner admit of it, either in its entirety or with modifications, is, in the majority of cases, the best means of effecting a rapid and useful recovery. (7) The tendency of late has been to exaggerate the degree of disability and diminution in wage-earning capacity following upon simple fractures. (8) Although no pains should be spared in obtaining perfect position of the fracture ends, moderate displacement, provided it is not rotatory, is not necessarily followed by any disability, if care be taken by the use of early movements to prevent any matting of the parts around the fracture: in other words, the disability which follows in certain cases in which the position of the united fragments is not ideal is due not to the bony deformity, but to the adhesion of the soft parts around, which is easily preventible. (9) Having regard to the unavoidable modifications which must be dictated by the circumstances, social and otherwise, of the patient, and by the facilities possessed by the practitioner, no one method of treatment for simple fractures can be insisted on for routine use, even in cases in which the local conditions are precisely alike.

STRANGE DEATH OF A CHILD IN CALCUTTA: ITS MEDICO-LEGAL ASPECTS.

THE European community of Calcutta have been strangely stirred by the sad death of an infant named RONALD ROSS, aged 16 months, in Lansdowne Road, a suburban street, on the night of the 26th April. The parents are English, and the child was under the care of a Scotch nurse, a *divorcée* named WENYAN, of Edinburgh, who passed under the name of Miss FLORA MACLEOD. From the newspaper reports of the judicial enquiry into the circumstances attending the death of the child, the nurse's story was that native robbers entered the house at midnight and smothered the child to death, and one of them scuffled with her and inflicted certain wounds on her person. The Judge who enquired into the case discredits the nurse's story, as the following passage from his report shows:—

"What did happen was difficult to conjecture. It seems, however, to be tolerably certain that at 12-15 A.M. the nurse awoke, finding the child dead, and that she had a guilty conscience as to the cause of its death. That she herself wrongly caused its death, I do not for a moment suspect. She was fond of the child and had no motive to kill it,

and had every motive to keep it alive. She may have in the heavy sleep into which she fell have overlaid the child, and eventually smothered it. Her first endeavours must have been to revive it, but finding it dead, she probably in an excess of fear thought she might be blamed for its death and thus lose all prospects of further employment, and thus set about to invent this story of its death. Finding the lamp in the mosquito net seems to me just what a woman would do who finds the child was dead, and wanted the best light to see if it was. It was the last thing a burglar would do. Subsequently the fainting and unconsciousness might well be the result of the frightful strain she had undergone. If any of the various stories were in supposition that the whole story and all her wounds were fabricated, the tension was sufficient to prostrate any woman."

We believe the general public is in accord with Judge LYALL's views, namely, that the story of the robbers is false, and that the wounds on the nurse's person were self-inflicted; but his conclusion in reference to the nurse overlaying the child, and thus accidentally causing its death, is scarcely well founded on the evidence as to the facts of the case. In the Judge's report we find:—

"From the evidence I have recorded, it would appear that on the night in question Mrs. FLORA WENYAN (commonly known in Calcutta as Miss FLORA MACLEOD), who was the deceased child's nurse, put it to bed at about 8.30 or 9 P. M. She had taken it from the chokra because it had been crying violently, and after sitting with it in a rocking-chair inside the large mosquito curtain for some time, put it into its own cot, which lay alongside her own bed, both of which were also within the same mosquito curtain as the rocking-chair. In order to get the baby to get to sleep quickly, she lay down fully dressed beside it, but on her own bed, and shortly fell asleep."

If, as from the evidence, it is true the nurse *did not sleep with the child*, then she could not have overlaid it. What then could have caused death? Some points in the evidence offer a clue to the suspicion that the child was accidentally overdosed with some narcotic poison and died therefrom. It is recorded that when Nurse MACLEOD took the infant from the native boy, "it was crying violently." When she awoke, as she states, at 12.30 P. M., "the child was perfectly well, and was sleeping soundly." It is recorded that she kept chlorodyne in her room, and took a dose of it herself on that fatal night. Might she not have given the child a dose to quieten it, and in her eagerness "to attend to other matters," might she not have poured out more than an ordinary dose? Is it not possible, too, that she was in the habit of dosing the infant with chlorodyne regularly at night to procure "sound" sleep? Under these circumstances, does it not seem particularly unfortunate that the *post-mortem* examination of the child's body by the Civil Surgeon of the 24-Parganas was so cursory and imperfect. Is it not lamentable, in the interests of the public, in the interests of common justice, that this officer did not deem it necessary to submit the contents of the child's stomach to chemical analysis? Is it not regrettable also that the public press (one daily paper in particular, which was apprised of these suspicions and asked to demand the exhumation of the child's body the very day after its death, so that the necessary analysis of the contents of the stomach might be made within a reasonable limit of time) did not compel the police authorities to act sooner in the matter of the exhumation of the child's body? The Judge, commenting on the medical evidence in this regard, says:—

"The evidence of Major E. HAROLD BROWN, I.M.S., the Civil Surgeon, deals with the *post-mortem* which had been so incompletely done as to yield no conclusive grounds for forming an opinion as to the cause of death. This necessitated my having to order (very reluctantly) the exhumation of the baby to admit of the viscera being subjected to the test of chemical analysis, which showed that there were no traces of poison. He was of opinion, from the description of the state in which the child was found, that death was due to suffocation."

The incompleteness of the original *post-mortem* examination was a most painful incident, and one for which I hold the police as much, if not more, to blame than the Civil Surgeon; both were very responsible in a case of this nature for seeing that, whatever else might be left in doubt, nothing should be left in doubt that medical knowledge could tell us as to the cause of the child's death."

We entirely concur in these strictures. Though it may be possible (and LYON's book on Medical Jurisprudence says it is possible, even four months after interment, to find opium in the human body) immediately after death to find traces of a minutely small quantity of morphia in the stomach, it is extremely doubtful that traces of a very small quantity of such poisons as morphia, cannabis-indica and chloroform, which are some of the ingredients of chlorodyne, could be found as many as twenty days after burial, as in the case of this child. To this unfortunate mistake of the Civil Surgeon is due the loss of the only clue that could have placed the real cause of this unfortunate child's death on a clear and satisfactory basis. We feel sure that in this case there has been a complete and lamentable miscarriage of justice, and that for this the Civil Surgeon, and not the police, is to blame. We believe death to have been accidental and absolutely unintentional, but we agree with the concluding remarks of the learned Judge in which he says:—

"I am perfectly convinced that Miss MACLEOD has perjured herself throughout, and her admission as to her former history and her recent doings in Calcutta make my conviction as to her utter unreliability doubly strong. Were it not that she must naturally throughout the enquiries have felt that she was in a measure on her own defence on a charge of neglect—possibly amounting to a criminal neglect—I should have considered the advisability of proceeding under Section 195, Indian Penal Code."

I find, so far as I can form an opinion on the evidence before me, that the death of the baby was due to accident, the precise nature of which it is difficult to show."

"Self-Destruction" under Life Insurance Policy.

THE *Journal of the American Medical Association* says:—The United States Circuit Court of Appeals, Fifth Circuit, holds, in *Union Mutual Life Insurance Company vs. Payne*, that "self-destruction," as used in a contract of insurance stating that it, sane or insane, is a risk not assumed by the company, means suicide, and does not include accidental self-killing. In other words, accidental or unintentional self-killing does not forfeit a policy for suicide. Moreover, the court holds that a statement in the proof of death that the insured committed suicide is not conclusive of that fact against the person making it, and does not relieve of the burden of proof the company setting up suicide as a defence, although it is admissible as evidence of suicide, and, in the absence of explanation or contradiction, might be quite sufficient evidence thereof.

COMMENTS AND NEWS.

RATIONAL SOCIALISM.

THE *Medical Brief* says:—A genuine socialism can only be consummated by the development and extension of social power. Social power does not operate through arbitrary force, civil or military, but through the cultivation and diffusion of an intelligent and healthy public sentiment.

So long as menace, coercion, confiscation, persecution by the assumption of arbitrary power on the part of the Government, are the measures proposed by which to inaugurate and maintain socialism, just so long will there be class hatred and strife. If by socialism is meant a highly-organized, harmonious social order, which will endure and progress, then it cannot be built up upon foundations of injustice and tyranny. The first essential of any permanent society is freedom to adapt itself to its growing wants and needs. The second essential is a proper understanding and sympathy between the different classes and members of that society.

Breadth of understanding and community of sentiment are safer foundations than community of personal or property interest.

As progress is always made through the individual, the pioneer of ideas, men should be embarrassed and hindered by no restraints, save that of an ever-watchful, but patient and tolerant public sentiment.

To such a socialism it is probable the world will come, in time, through the natural evolution of organic forces. But reformers who really love their kind, and desire to benefit men, must restrain their impatience, and keep their hands off. It is not governing power which needs to be increased, but social power, which requires enlightenment and training. Let reformers stop appealing to the passions of men, and cultivate the understanding. Let them control their own emotions, and try to make each class comprehend and sympathise with others, by occasionally depicting some of the cares, burdens, risks and responsibilities which accompany high stations in life, instead of dwelling continually on their external pomp and show, as compared with the hardships of the poor man's lot.

Let reformers teach the value of small beginnings. The seeds of moral strength are sowed by the veriest trifles that arouse ambition and interest, and spreading, through imitation, from man to man, leaven the social mass. Let reformers try to elevate, by appropriate practical suggestions, the standard of life for men in the lower walks, instead of advocating political measures of fraud and force, directed, apparently, against the individual and property rights of the well-to-do alone, but the working out of which would inevitably involve us all in a general ruin.

Let the honest reformer appeal to the sense of proprietorship which resides in all men, and upon which hinges the sense of individual responsibility. The little plot of green grass, the neat flower bed, the piece of bright new furniture, which are the family pride and joy, entail duties to keep them in condition, and arouse ambition to increased efforts and self-denials, to procure other things in keeping with them. And so a man is harnessed in social traces, and becomes a responsible agent. He must maintain his standing in the community, so he orders his life, subdues rebellious propensities, and struggles with all his strength to maintain the appearance of prosperity and integrity.

Gradually the virtues assumed for no high reasons in the first place, broaden into moral ideals, which he loves for their own sake. And all this time his social power has been growing and extending. The spectacle of his life, however humble its sphere, is influential for good.

When reformers set to work in a practical, definite way, to teach correct principles of thought and action, and seek to form character, instead of enacting laws, that dream of socialism will come true, but not before.

The Doctor is by nature, training and vocation the ideal reformer. He is admitted to the home on a footing of friendship and confidence shared by no one else. Let him exert himself to discharge to the full the responsibilities which inhere in such a social status, and his fidelity to duty, social as well as professional, is certain to be rewarded in more ways than one.

THE CONSERVATION OF ENERGY.

THE *Medical Brief* says:—The principle of the conservation of energy is universal throughout Nature. By living in harmony with this principle, man may prolong his life period to a hundred years, and enjoy the use of his faculties, practically unimpaired, until the close.

But how shall we do this? How shall we conserve bodily energy, so that the physical machine may run smoothly and evenly? By observing the laws which govern other machines. Any piece of mechanism, run to excess, will soon wear out. If this is true of iron and steel, how much more so of the delicately organized, wonderfully adapted, physical machine.

The craze for exercise is pulling down racial longevity, and will make the next generation distorted, deformed in shape, thin, dyspeptic and energyless, deficient in mental and moral power. Its women will be ungainly and masculine in appearance and character.

Let us look at the facts. Who are the men who live the longest? Clergymen, authors, scientists, lawyers—men who take very little exercise. On the other hand, farmers who take much exercise, following the plough and doing chores, sportsmen who hunt, fish, play golf, etc., are short-lived.

The Gulf States of the South are full of widows. Why? Because the men were up and out all day following the above pursuits, exhausting themselves, while the wives sat at home with open doors, after the Southern fashion, getting all the advantage of the air without wearing themselves out. And where in the world will you find more beautiful women than those reared in the South (that part of it called the Confederate States)? These women take only moderate exercise, but the doors of their houses are kept wide open the year around.

It is the *air* which benefits. Enough exercise to put all the muscles in play, start the blood moving and expand the lungs is good. It stimulates the assimilation of oxygen, and the eliminating organs. But a half mile out and a half mile back is a sufficient constitutional for any one. It is the *regularity* of exercise which tells, not the amount. No one should experience a feeling of weariness after exercise. If he does, he is wasting his energy and doing himself harm. He needs that energy for digestion, for thinking, etc. The unnecessary breaking down of tissue, during heavy exercise, makes a man feverish, causes toxæmia, heart and kidney strain.

Athletes notoriously die early. They may be models of muscular manhood, but their vital organs are prematurely worn out. On the other hand, we are constantly reading of

some old man or woman dying in the county poorhouse who had passed the century mark several years. Many of us have grandmothers who have reached the nineties hale and hearty, yet who took no exercise the last twenty years of their lives.

Animals do not force themselves painfully, through immense efforts of will, to undergo fatiguing exertions. They stretch and yawn a few times a day, and forage a little, yet they keep in excellent condition, because always in the air.

As guardians of the public health, it is time for us to make a stand against the athletic craze. The swinging of ponderous clubs and dumbbells, rowing heavy machines, pulling up weights, walking fifteen or twenty miles a day, chasing a golf ball, etc., etc., is needless and injurious to any one. As physicians, we prescribe *moderate exercise* for lymphatic and obese patients of torpid temperament, and a few indicated movements to straighten up a deflected spine or round shoulders, etc., but we are careful to guard against fatigue. Such exercise is a very different thing from the severe and senseless efforts required by teachers of gymnastics and exercise fiends.

If people would live long and healthy, they should take their exercise under the advice of a common-sense physician, not at the instance of gymnasts and friends.

The wrenching of muscles, tendons, ligaments, joints, nerves, and blood-vessels are giving us all kinds of puzzling pathological conditions, traumatic neuroses, dislocated viscera, etc., traceable to over-exercise, if we only knew where to look for it. Ascertain the habits of such patients in this regard, and find out where the energy of the tired ones is going to.

BROTHERHOOD.

Fraternal regard ! Amid our troubles
And perplexities, when life so beautiful
Appears joyless, 'tis a solace to the mind
To know we have the regard of all whom
We call Brethren. Come weal or woe, by
Patience, perseverance, and strictly following
The path of duty, we may all hope at least
To deserve it. When Brotherly love exists in its
Truest sense, how intense is that inward feeling
One toward another. The hearty handshake,
The genial smile, a kind word, and the joyful
Sound of Brother ! In one's ear, tends to allay
Fear and banish thoughts of a despairing nature ;
Giving us heart to go onward ! Notwithstanding
Our many vicissitudes : Making more smooth
The rugged ways through which we have to pass, in
Whatever sphere it hath pleased God to call us.
The true spirit of Fraternity is seen in our
Actions, not in promises ; not in our speech, but in deeds ;
Deeds of kindness, which may be rendered by all,
Whether rich or poor. The Fatherhood of God !
The Brotherhood of Man ! should be our forte, our aim.

JOHN GANT.

A DISPENSER'S MISTAKE.

THE Chemist and Druggist says :—At Aston, Birmingham, on April 9, an inquest was held on the body of MARY LOUISA DAVIS, aged 12, who died from the effects of a dose of tincture of iron. The girl frequently suffered from nervous headaches, and on April 2 she was brought home from school unwell, and Dr. SMITH, who was called in, pronounced it a case of typhoid. A bottle of medicine was obtained from Dr. SMITH's surgery, and after the girl was given a

tablespoonful of it she became black in the face, and died in agony the following morning. Dr. PROSSER, who was called in, was shown the medicine, and declared that it was strong enough to kill anyone. He made a *post-mortem* along with Dr. HOLMES, and found the mouth, tongue, stomach, and intestines were corroded by the action of the tincture. Dr. SMITH stated that after Mr. DAVIS left his house, witness discovered that he had given him a bottle of tr. ferri instead of one, which he now produced, labelled "For DAVIS's child." He went to Mr. DAVIS's house at once to make an explanation. The tincture, he explained, was one of which he used gallons in his practice, and he himself had swallowed at least 1 fl. oz., and had felt no ill-effects. The Coroner said Dr. SMITH had evidently contributed to the hastening of the child's end, but there was also a certain amount of negligence on the part of the parents, because the fact that the label was upside down was sufficient to induce inquiry, while the bottle was not an ordinary medicine-bottle. Death from misadventure was the verdict of the jury. They added that Dr. SMITH ought to have been more careful.

ALBERT VICTOR HOSPITAL, CALCUTTA.

SIR JOHN WOODBURN visited the Albert Victor Hospital at Belgachia Road, in the northern part of the town, on Saturday. His Honor was received by Dr. LALL MADHUB MOOKERJEE, Rai Bahadur, Superintendent of the Hospital, and the members of the Hospital Committee, who were introduced to the Lieutenant-Governor by the Superintendent. His Honor was conducted all over the place, and expressed his hearty approval of the building, which has just been completed by Messrs. MARTIN & Co. at a cost of nearly a lakh of rupees, including the value of the land. The Institution has been got up entirely by private enterprise, and has been endowed by benefactors from the wealthy native community. It has thirty beds, each bed requiring an endowment of Rs. 2,500, and of these twenty-one have already received endowments. The hospital is to be used for clinical instruction of the students of the Calcutta Medical School, of which Dr. LALL MADHUB MOOKERJEE is the President. It is expected that His Honor will formally open the hospital on his return from Darjeeling after the rains.

WHEN IS A GONORRHEA CURED.

We quote from the *New York Medical Record* :—PAUL THORNDIKE puts the question, and says that it cannot be answered. Before it is safe to marry, all acute cases should be freed from all traces of discharge, both that visible at the meatus and that showing as shreds in the urine, and should remain thus free for a period of months. In the chronic cases the cause of the discharge, whether it be a stricture already formed, granulating patches, areas untreated and uncured in the posterior urethra, involvement of the seminal vesicles, etc., must be sought for and treated and cured. This can usually be done, but often takes a number of months for its accomplishment. Having been so accomplished, the patient must pass through a period of probation similar to the one mentioned above.

CALCUTTA GENERAL HOSPITAL.

THE *Medical Engineering* says :—Up to the end of March last a sum of nearly 15 lakhs was spent on the new General Hospital, and it does not appear to be the intention of the Local Government to proceed much further at present. The works that are practically completed are the new block for males, the nurses' quarters, and the beginning of the infectious diseases ward. The female and administrative blocks are in abeyance, and the idea of a dairy has been abandoned. It is not proposed to construct a paying patients' block for the present, as it is possible to modify the existing male block so as to meet all requirements for some time to come. The famine of 1897 is responsible for this tinkering.

PROFESSORIAL EMOLUMENTS.

We quote the following from the *Chemist and Druggist* :— In a parliamentary paper containing the annual statistical report by the University of Edinburgh to the Secretary for Scotland, the incomes of the various professors are detailed. The Faculty of Medicine appears to be by far the best paid, the gentlemen with the highest total (£2,012) being Sir WILLIAM TURNER, Professor of Anatomy. Next comes Dr. CYRUS BROWN, Professor of Chemistry, who gets £1,828. Professor BAYLEY BALEFORD (Botany) has £1,515, and Professor T. B. FRANK (Materia Medica) £1,290. Neither Law, Science, nor Divinity appears to go beyond three figures, and the only four-figure professors in the Arts are W. E. BAIRD (Humanity), S. H. PUTCHER (Greek), G. CRYSTAL (Mathematics), and P. G. TAIT (Natural Philosophy).

SHORT ITEMS AND PERSONALITIES.

"If thou wouldst live untrifled by care,
Let not the past torment thee e'er;
As little as possible be thou annoy'd;
And let the present be ever enjoy'd;
Ne'er let thy breast with hate be supplied,
And to God the future confide."—GOETHE.

The oldest practitioner of medicine in the United States is claimed to be Dr. John P. Wood, of Coffeyville, Kansas. He is in his ninety-ninth year, and still devotes a large part of each day to his profession.

The hospital ship *Carthage*, after having undergone some repairs at the Government Dockyard, left yesterday with some details for China, including a couple of officers of the Indian Medical Service.

Government has sanctioned a gratuity of six months' British pay, at £250 a year, to Captain Gunter, R.A.M.C. on account of an ailment contracted by him in the performance of his duty.

Lieutenant-Colonel Henry Hamilton, I.M.S., on return from China, succeeds Lieutenant Colonel P. Connell, R.A.M.C., as Principal Medical Officer, Peshawar District.

Lieutenant-Colonel J. Duke, I.M.S., Residency Surgeon, Kashmir, comes to Calcutta to take up the appointment of Principal Medical Officer, Presidency District.

The fanatic who killed Captain Johnstone, I.M.S., at Loralai has died of pneumonia. A number of his relatives have been sent to prison, and his village has been disarmed and fined.

Colonel A. M. Branfoot, C.I.E., Indian Medical Service, officiates as Surgeon-General with the Government of Madras, during the absence of Surgeon General Sinclair, on privilege leave.

Captain Charles Barrymore Harrison, I. M. S., is appointed to act as Lecturer on Mental Diseases Medical College, Madras, during the absence, on leave, of Captain C. B. Leet Palk, I. M. S.

After using iodoforn, wash the hands in soap and water, and rinse them in a little vinegar. This will entirely remove the odour.

Thirty thousand rupees have been estimated as the cost of a family hospital for British troops at Rangoon.

Lieutenant-Colonel E. Palmer, I.M.S., Bengal, is permitted to retire from the service.

A well-equipped and endowed Institute of bacteriology has been erected in Ceylon.

Current Medical Literature.

MEDICINE.

Diabetes.

ACCORDING to VAUGHAN, diabetes mellitus is a name used to designate the fact that the body has lost more or less its function of normally metabolising carbohydrates. According to this definition, diabetes and glycosuria are by no means synonymous. The capability of the individual for the utilisation of carbohydrates is limited. A healthy working adult thrives best upon from 18 to 20 ounces of carbohydrates daily, while he may dispose of two to three times this amount, for a time at least. It is not probable that the healthy man can take enough starch to cause sugar to appear in his urine, but with less complex carbohydrates, the facts are otherwise, and a temporary glycosuria can be induced by an excess of sugar. This, however, does not occur very often. The tests for sugar are reviewed, and the necessity of the greatest care in making these emphasised. The class of foods—proteids, fats and carbohydrates—and the proportion of each required by a normal man are enumerated, and VAUGHAN lays down the diet tables for a case of diabetes, which differ from those usually given, in that they contain relatively more fat and less proteid. He thinks that proteid feeding is overdone in this disease, and it frequently happens that the sugar decreases by cutting down the proteids. The diet is arranged for a regular progressive course of seven days, and when the fully non-carbohydrate bill of fare of the last day is reached, it should be continued for at least five days, the urine being tested during the last two. If the sugar disappears under the non-carbohydrate diet, the case belongs under the head of mild glycosuria; but if it persists, the severe form may be said to be present. If it is the former, we must determine to what extent the patient has lost the power of utilising the carbohydrates in his food and try the tables given in inverse order for five days and test the urine regularly until the sugar reappears. Having thus ascertained the amount of carbohydrates he can utilise, a steady diet is fixed. In those cases which continue to excrete sugar under non carbohydrate diet, after the last days of the series, the dieting becomes a very serious matter, and VAUGHAN thinks it best to insist that a non-carbohydrate diet should be followed one week out of every four. The short and frequent periods are more easily borne by the patient and are more beneficial to him. During the interval from 100 to 120 gm. of white bread or its equivalent should be allowed daily. These cases are incurable with present means, and the best we can do is to prolong life.—*Jour. Amer. Med. Assoc.*

Classification and Etiology of Dysentery.

FLEXNER, discussing the classification and etiology of dysentery, sums up our present knowledge by stating: (1) That no bacterial species yet described has the special claim of being regarded as the chief micro-organism concerned with the disease; (2) it is not likely that any bacterial species normally present in the intestine or environs of man, except where the disease is endemic, can be regarded as the probable cause of epidemic dysentery; (3) the relations of sporadic and epidemic dysentery are so remote that it is improbable they are produced by the same cause; (4) the pathogenic action of the *Amoeba coli* in certain examples of tropic and sporadic dysentery has been disproved by the discovery of the amoeba in the normal intestine. Amoebae are commonly present, and are concerned with the production

of the lesions of subacute and chronic dysentery. They have yet to be shown to be equally connected with the acute dysenteries, even in the tropics. SMIGA has made a careful bacteriologic study of Japanese dysentery. From his cases examined a bacillus was isolated which fulfilled the requirements of a causative agent of this form of dysentery. FLEXNER during three months' residence in Manila, carefully studied the dysentery of the Philippine Islands. He describes two main forms of the disease—acute and chronic. Amœba were not found in the stools. In chronic, ulcerative forms they were variable in number. Upon bacteriologic examination FLEXNER isolated two types of organism found especially in the acute cases. The first organism is a bacillus, somewhat of the colon-typhoid type, with peculiarities of growth described. This gave the agglutination test many times with the blood of persons suffering from the disease, whether the host or another individual. Type two present in all cases. Its properties agree with that of *B. coli communis*. With this organism the agglutination test was frequently positive with the host and rarely with other individuals. This organism was found to be absent from healthy dejecta or in the stools of the natives suffering from beri-beri. FLEXNER concludes this bacillus to be identical with that described by SMIGA. The results with the agglutination test were positive in cases of the acute disease in which infection with the bacilli was established. It was also present in a case of Porto Rican chronic dysentery, but was inconsistent with blood from other chronic cases. With several cases of chronic amœbic dysentery under OSLER'S care the test was negative. As to treatment, FLEXNER expects great benefit from a species of vaccination and witnesses the effect of infecting the dead bacilli in cholera. The method and details will have to be carefully evolved.

Hygiene of Asthmatics.

THE points especially made by JACK are the necessity of proper diet, which should consist of such foods as are most rapidly assimilated and most readily oxygenated, the most available meats being fresh rare beefsteak or roast. This, however, is not alone sufficient, and he begins feeding with the progressive diet constructed by LEUBE, which is as follows: (1) Bouillon, Leube-Rosenthal meat solution; milk; soft-boiled or raw eggs; dry toast or crackers; water or neutral indifferent effervescent (CO_2) water. (2) Boiled calf's brains; boiled sweet-bread—thymus of calf; boiled young chicken; boiled aquab; cereal soups; tapioca cooked in milk; boiled calf's feet. (3) Sirloin pulp steak; grilled sirloin steak; scraped raw ham; mashed potatoes, baked with a little milk and butter; a little white bread; cup of hot water with milk and salt. (4) Roast beef; roast chicken; venison, partridge and veal; boiled lean fish; macaroni; bouillon or rice soup; spinach; a little wine. (5) Baked apple; all common foods; finally, salads, vegetables and stewed fruits. This he has clinically found satisfactory. He also advises the free use of acid fruits. The diet of the asthmatic should be varied and abundant—he should make eating his chief aim in life, and should eat frequently, much and in variety. Rest to disengage he ranks hydrotherapy, and the method he prefers is cool water sponging, followed by friction. Sunlight is another essential, and the baths above mentioned should be taken in a well-lighted room, if possible under direct solar rays. He speaks also of the value of attitude in the treatment of asthma, and the necessity of regular habits. He would cut off tobacco absolutely, and would only use alcohol under medical direction during severe asthmatic seizures. Next to attitude, the most important question of location is the presence of malaria, which should be avoided. This explains the advantage of city over country life.—*Jour. Amer. Med. Assoc.*

SURGERY.

Examinations of the Deaf and Dumb.

OTTO BARNICK reports the results of a careful examination of 148 pupils of a deaf and dumb institution. Seventy-two were boys, 71 girls. The ages ranged from 8 to 15 years; 10 years was the average age at the child's entrance to school, and children were not taken into the school before they had completed their seventh year. In 68.63% of the pupils the deafness was acquired; in 15.68% it was congenital. Of the 91 cases of acquired deafness, 18 were the result of traumatism, two of lightning, eight of meningitis, two of typhoid fever, one of small-pox, two of scarlet fever and diphtheria, nine of inflammation of the middle ear, 12 of suppuration of the middle ear without known cause, six of middle ear suppuration after scarlet fever, three of middle ear suppuration after measles, three of middle ear suppuration after diphtheria, two of middle ear suppuration after whooping-cough, one of middle ear suppuration after pneumonia, and 24 from other causes. Examination with the otoscope showed a chronic middle ear catarrh of pretty high degree in 22 cases; 17 had residues of chronic middle ear suppuration, such as scars, perforations and calcareous degeneration; nine had otorrhea and 11 had normal drums. Forty-three of the pupils had adenoids, 14 had hypertrophied tonsils, as many more hypertrophic rhinitis; two had osena. Nearly one-third of the cases had partial or complete nasal obstruction. From the great percentage (58.74 of the deaf and dumb pupils having chronic middle ear catarrh, the author believes that this disease plays an important part in the origin of this trouble. The pupils belonged nearly entirely to families of the lower class, and had lived in very unfavorable surroundings. It is a well known fact that in institutions for the deaf and dumb there are a number of children who still possess a certain amount of hearing power; 22% of the author's cases were totally deaf, 26% had weak tone perception, responding to loud noises, and middle and deep tones of the piano; 41% retained power to hear single words. Taking the 182 ear-organs examined, 30.20% were totally deaf, and 68.6% had more or less hearing power left.

Two Cases of Nephrotomy, with Some Remarks concerning Operations on the Kidneys.

DR. V. I. LISIANSKY reports his first case was one of suppurative nephritis. The removal of the kidney was not possible, because the organ was completely surrounded by adhesions, so the surgeon performed a nephrotomy, and drained the suppurating wound with gauze, after irrigating the region with boric acid solution. The patient recovered, and six months later no unfavorable symptoms were noted. The second case was also one of old neglected surgical kidney, with fistula and firm adhesions in the region of the organ, for which reason nephrotomy, and not nephrectomy, was performed. The patient recovered, but was discharged with a fistula. In certain cases when nephrectomy is not possible, we have to content ourselves with mere incision and drainage. The author agrees with IZEMAN, that, in patients with weak hearts, a prolonged narcosis and profound shock such as results from nephrectomy are too dangerous, and that it is often better in these cases also to limit ourselves to nephrotomy; yet we risk the development of amyloid kidney if the nephrotomy does not arrest the suppuration, and therefore the case must be selected with great care.—*New York Med. Rec.*

Bone Shaft Fractures.

MAVER reviews the subject of fractures of the long bones, and summarizes his conclusions as follows: (1) The nearer the fractures of the bone shaft are located to the joint, the more serious the result. (2) When complicated by sublocation, or when the fracture extends into the articulation, troublesome complications are quite certain in a large proportion of cases. In this class the osteopneumonia may be non-important as compared with the change to the articular structures, large blood-vessels and nerves. (3) The symptoms of joint fracture are not unequivocal. There are no special characteristic symptoms in the pain of dislocation, sprain or fracture. As a rule, after reaction sets in, the suffering is greater in joint than in any other fractures. (4) The definite diagnosis of position and quality of intra and extra-articular fractures is often difficult and sometimes impossible. When the fragments are not displaced, the application of great force under anesthetics to verify the diagnosis is unjustifiable, unless the patient insists on it. In consequence of the frequent errors and uncertainties of the use of the x-rays without other confirmatory evidence, their employment as diagnostic agents in these doubtful lesions is unreliable. (5) The primary treatment of closed intra-articular fractures, or those in close proximity to the joint in general, must be recognized on these fundamental principles everywhere. In intracapsular fractures at the hip, with proper antiseptic precautions, primary resection of the distal fragments will shorten convalescence, spare the patient needless suffering, and leave a better limb than when the articular head is retained. (6) In a considerable proportion of aggravated cases in young persons, consecutive osteoplastic surgery will frequently give the best result. This is only resorted to after acute symptoms have subsided.

Circumcision.

FREELAND discusses the following questions under circumcision: (1) Is the operation safe? (2) Does the operation interfere with the physical well-being of the individual? (3) Does the end justify the means? The first is answered in the positive; second, in the negative; the third, in the positive. He argues that circumcision not only will prevent oftentimes dysuria, enuresis, urinary retention, balanitis, rectal prolapse and the aggravation of gonorrhoea and other venereal diseases, but that it also greatly lessens the tendency to contract syphilis and the spread of this disease. He produces figures to show how much less frequent syphilis is in the Hebrew race than in other races, and attributes the fact to circumcision. In performing the operation, he advises the removal of the entire prepuce with the frenum.—*Phil. Med. Jour.*

Occurrence of Floating Kidney in Arab Women.

M. TAREKI of Alexandria, has studied this subject, in the hope of shedding further light on the much disputed etiology of floating kidney. Arab women wear no corset, girdle, nor any form of dress likely to influence displacement of the kidney, and yet the proportion in which this organ was found by the author to be freely movable amounted to no less than 42 per cent. of the cases examined, being a higher percentage than is found in European women.—*Edn. Med. Jour.*

OBSTETRICS AND GYNECOLOGY.

Post-partum Hemorrhage.

BLACKER remarks that the causes of post-partum hemorrhage are to be sought in the conditions giving rise to uterine inertia. These may be classified as follows: (1) Feebleness, exhaustion, or malnutrition of the patient, due to a condition of chronic starvation or the result of some disease complicating the labor, such as grave heart-disease. (2) Overdistention of the uterus and undue stretching of the uterine muscles, such as occurs in cases of hydramnios or multiple pregnancies. (3) Relaxation of the uterine muscle from frequent child-bearing. (4) Pathologic conditions of the uterine wall, as fibroid tumors, marked fatty degeneration and atony, due to septic infection. (5) Some mechanical hindrance to the contractions and relaxation of the uterus, such as the retention of the placenta in situ, or the presence of adhesions between the uterus and surrounding structures. (6) Too rapid emptying of the uterus, either by the application of forceps or after version. (7) Extreme nervous depression and shock, such as may follow the birth of a dead child. (8) The administration of chloroform. (9) Deficient coagulability of the blood, such as occurs in septic affections and in hemophilia. As a means of prevention of post-partum hemorrhage, BLACKER recommends small doses of ergot and strychnine combined with iron or hydrochloric acid during the last month of pregnancy. As a routine means of treatment, he considers plugging the os uteri greatly inferior to bimanual compression. There are, however, two classes of cases with which the latter method is especially indicated, namely, where the uterus is prevented from contracting and retracting by the presence of adhesions, or by the existence of fibroid tumors in its wall.—*Phil. Med. Jour.*

Diagnosis of Ectopic Pregnancy before Rupture.

BALDWIN (*St. Louis Courier of Medicine*) says the sharp colicky pains, the syncope and collapse, at once attract attention and point almost unerringly to ruptured ectopic pregnancy. The author, however, points out that it is dangerous to defer diagnosis until rupture has occurred, and says there are no pathognomonic symptoms of tubal pregnancy, or of any other form of ectopic pregnancy. Usually, however, we find the following points: The patient gives a history of several years of sterility (many exceptions); she has missed a menstrual period, perhaps two of them (numerous exceptions); she has noticed some unusual pains in the pelvis, which she will probably describe as boring, gripping, or colicky in character, these pains being situated usually in the region of an ovary; she has, perhaps, within a few days of the time of consulting her physician, had a more or less irregular hemorrhage; perhaps has discharged pieces of membrane which she supposed indicated an abortion, owing to hemorrhage, pain, and suspicion of an existing pregnancy. Possibly, however, there has been no suspicion of a pregnancy, as the woman has accepted her sterility as honorable. On making a vaginal examination, if the conditions are at all favorable, the examiner will find upon one side or the other of the uterus, or back of it, a firm, well-defined cystic tumor, the size of a pullet's egg or a little larger. This tumor will probably be tender on pressure, symmetric in outline and distinctly pulsating. When the uterus is found somewhat enlarged and having the feel of pregnancy, but not enlarged so much as we would expect, a presumptive diagnosis of tubal pregnancy is warranted, and the

of the lesions of subacute and chronic dysentery. They have yet to be shown to be equally connected with the acute dysenteries, even in the tropics. SHIGA has made a careful bacteriologic study of Japanese dysentery. From his cases examined a bacillus was isolated which fulfilled the requirements of a causative agent of this form of dysentery. FLUXNER during three months' residence in Manila, carefully studied the dysentery of the Philippine Islands. He describes two main forms of the disease—acute and chronic. Amœba were not found in the stools. In chronic, ulcerative forms they were variable in number. Upon bacteriologic examination FLUXNER isolated two types of organism found especially in the acute cases. The first organism is a bacillus, somewhat of the colon-typhoid type, with peculiarities of growth described. This gave the agglutination test many times with the blood of persons suffering from the disease, whether the host or another individual. Type two present in all cases. Its properties agree with that of *B. coli communis*. With this organism the agglutination test was frequently positive with the host and rarely with other individuals. This organism was found to be absent from healthy dejecta or in the stools of the natives suffering from beri-beri. FLUXNER concludes this bacillus to be identical with that described by SHIGA. The results with the agglutination test were positive in cases of the acute disease in which infection with the bacilli was established. It was also present in a case of Porto Rican chronic dysentery, but was in constant with blood from other chronic cases. With several cases of chronic amœbic dysentery under OSLER's care the test was negative. As to treatment, FLUXNER expects great benefit from a species of vaccination and witnesses the effect of injecting the dead bacilli in cholera. The method and details will have to be carefully evolved.

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SURGERY.

Examinations of the Deaf and Dumb.

OTTO BARNICK reports the results of a careful examination of 143 pupils of a deaf and dumb institution. Seventy-two were boys, 71 girls. The ages ranged from 8 to 15 years; 10 years was the average age of the child's entrance to school, and children were not taken into the school before they had completed their seventh year. In 63.63% of the pupils the deafness was acquired; in 36.36% it was congenital. Of the 91 cases of acquired deafness, 15 were the result of traumatism, two of lightning, eight of meningitis, two of typhoid fever, one of small-pox, two of scarlet fever and diphtheria, nine of inflammation of the middle ear, 12 of suppuration of the middle ear without known cause, six of middle ear suppuration after scarlet fever, three of middle ear suppuration after measles, three of middle ear suppuration after diphtheria, two of middle ear suppuration after whooping-cough, one of middle ear suppuration after pneumonia, and 24 from other causes. Examination with the otoscope showed a chronic middle ear catarrh of pretty high degree in 22 cases; 17 had residua of chronic middle ear suppuration, such as scars, perforations and calcareous degeneration; nine had otorrhea and 11 had normal drums. Forty-three of the pupils had adenoids, 14 had hypertrophied tonsils, as many more hypertrophic rhinitis; two had ozena. Nearly one-third of the cases had partial or complete nasal obstruction. From the great percentage (58.74 of the deaf and dumb pupils having chronic middle ear catarrh, the author believes that this disease plays an important part in the origin of this trouble. The pupils belonged nearly entirely to families of the lower class, and had lived in very unfavorable surroundings. It is a well known fact that in institutions for the deaf and dumb there are a number of children who still possess a certain amount of hearing power; 22% of the author's cases were totally deaf, 26% had weak tone perception, responding to loud noises, and middle and deep tones of the piano; 41% retained power to hear single words. Taking the 132 ear-organs examined, 80-20% were totally deaf, and 68.8% had more or less hearing power left.

Two Cases of Nephrotomy, with Some Remarks concerning Operations on the Kidneys.

DR. V. I. LISTANSKY reports his first case was one of suppurative nephritis. The removal of the kidney was not possible, because the organ was completely surrounded by adhesions, so the surgeon performed a nephrotomy, and drained the suppurating wound with gauze, after irrigating the region with boric acid solution. The patient recovered, and six months later no unfavorable symptoms were noted. The second case was also one of old neglected surgical kidney, with fistula and firm adhesions in the region of the organ, for which reason nephrectomy, and not nephrectomy, was performed. The patient recovered, but was discharged with a fistula. In certain cases when nephrectomy is not possible, we have to content ourselves with mere incision and drainage. The author agrees with ISSAZ, that, in patients with weak hearts, a prolonged narcosis and profound shock such as results from nephrectomy are too dangerous, and that it is often better in these cases also to limit ourselves to nephrotomy; yet we risk the development of amyloid kidney if the nephrotomy does not arrest the suppuration, and therefore the cases must be selected with great care.—*New York Med. Rec.*

Bone Shaft Fractures.

MARLEY reviews the subject of fractures of the long bones, and summarizes his conclusions as follows: (1) The nearer the fractures of the bone shaft are located to the joint, the more serious the result. (2) When complicated by subluxation, or when the fracture extends into the articulation, troublesome complications are quite certain in a large proportion of cases. In this class the osseous lesions may be non-important as compared with the change to the articular structures, large blood-vessels and nerves. (3) The symptoms of joint fracture are not unequivocal. There are no special characteristic symptoms in the pain of luxation, sprain or fracture. As a rule, after reaction sets in, the suffering is greater in joint than in any other fractures. (4) The definite diagnosis of position and quality of intra and extra-articular fractures is often difficult and sometimes impossible. When the fragments are not displaced, the application of great force under anesthetics to verify the diagnosis is unjustifiable, unless the patient insists on it. In consequence of the frequent errors and uncertainties of the use of the *x*-rays without other confirmatory evidence, their employment as diagnostic agents in these doubtful lesions is unreliable. (5) The primary treatment of closed intra-articular fractures, or those in close proximity to the joint in general, must be recognized on these fundamental principles everywhere. In intracapsular fractures at the hip, with proper antiseptic precautions, primary resection of the distal fragments will shorten convalescence, spare the patient needless suffering, and leave a better limb than when the articular head is retained. (6) In a considerable proportion of aggravated cases in young persons, consecutive osteoplastic surgery will frequently give the best result. This is only resorted to after acute symptoms have subsided.

Circumcision.

FREELAND discusses the following questions under circumcision: (1) Is the operation safe? (2) Does the operation interfere with the physical well-being of the individual? (3) Does the end justify the means? The first is answered in the positive; second, in the negative; the third, in the positive. He argues that circumcision not only will prevent oftentimes dysuria, enuresis, urinary retention, balanitis, rectal prolapse and the aggravation of gonorrhoea and other venereal diseases, but that it also greatly lessens the tendency to contract syphilis and the spread of this disease. He produces figures to show how much less frequent syphilis is in the Hebrew race than in other races, and attributes the fact to circumcision. In performing the operation, he advises the removal of the entire prepuce with the frenum.—*Phil. Med. Jour.*

Occurrence of Floating Kidney in Arab Women.

M. TSEKAKI of Alexandria, has studied this subject, in the hope of shedding further light on the much disputed etiology of floating kidney. Arab women wear no corset, girdle, nor any form of dress likely to influence displacement of the kidney, and yet the proportion in which this organ was found by the author to be freely movable amounted to no less than 42 per cent. of the cases examined, being a higher percentage than is found in European women.—

Min. Med. Jour.

OBSTETRICS AND GYNECOLOGY.**Post-partum Hemorrhage.**

BLACKER remarks that the causes of post-partum hemorrhage are to be sought in the conditions giving rise to uterine inertia. These may be classified as follows: (1) Feebleness, exhaustion, or malnutrition of the patient, due to a condition of chronic starvation or the result of some disease complicating the labor, such as grave heart-disease. (2) Overdistention of the uterus and undue stretching of the uterine muscles, such as occurs in cases of hydramnios or multiple pregnancies. (3) Exhaustion of the uterine muscle from frequent child-bearing. (4) Pathologic conditions of the uterine wall, as fibroid tumors, marked fatty degeneration and atony, due to septic infection. (5) Some mechanical hindrance to the contraction and retraction of the uterus, such as the retention of the placenta in utero, or the presence of adhesions between the uterus and surrounding structures. (6) Too rapid emptying of the uterus, either by the application of forceps or after version. (7) Extreme nervous depression and shock, such as may follow the birth of a dead child. (8) The administration of chloroform. (9) Deficient coagulability of the blood, such as occurs in septic affections and in hemophilia. As a means of prevention of post-partum hemorrhage, BLACKER recommends small doses of ergot and strychnine combined with iron or hydrochloric acid during the last month of pregnancy. As a routine means of treatment, he considers plugging the uterus as greatly inferior to bimanual compression. There are, however, two classes of cases with which the latter method is especially indicated, namely, where the uterus is prevented from contracting and retracting by the presence of adhesions, or by the existence of fibroid tumors in its wall.—*Phil. Med Jour.*

Diagnosis of Ectopic Pregnancy before Rupture.

BALDWIN (*St. Louis Courier of Medicine*) says the sharp colicky pains, the syncope and collapse, at once attract attention and point almost unerringly to ruptured ectopic pregnancy. The author, however, points out that it is dangerous to defer diagnosis until rupture has occurred, and says there are no pathognomonic symptoms of tubal pregnancy, or of any other form of ectopic pregnancy. Usually, however, we find the following points: The patient gives a history of several years of sterility (many exceptions); she has missed a menstrual period, perhaps two of them (numerous exceptions); she has noticed some unusual pains in the pelvis, which she will probably describe as boring, gripping, or colicky in character, these pains being situated usually in the region of an ovary; she has, perhaps, within a few days of the time of consulting her physician, had a more or less irregular hemorrhage; perhaps has discharged pieces of membrane which she supposed indicated an abortion owing to hemorrhage, pain, and suspicion of an existing pregnancy. Possibly, however, there has been no suspicion of a pregnancy, as the woman has accepted her sterility as incurable. On making a vaginal examination, if the conditions are at all favorable, the examiner will find upon one side or the other of the uterus, or back of it, a fusiform, well-defined cystic tumor, the size of a pullet's egg or a little larger. This tumor will probably be tender on pressure, symmetric in outline and distinctly pulsating. When the uterus is found somewhat enlarged and having the feel of pregnancy, but not enlarged so much as we would expect, a presumptive diagnosis of tubal pregnancy is warranted, and the

matter of an operation should be carefully and without delay considered. There are few conditions which give rise to the same kind of a tumor as is found in these cases. An enlarged and adherent ovary in DOUGLAS'S pouch suggest, perhaps, be differentiated from a tubal pregnancy in the same location. An old pyosalpinx, a hydrosalpinx, a small cyst of the broad ligament or an enlarged ovary in its normal location, might be mistaken for an incarcerated tubal pregnancy. It is not likely, however, that any of these conditions would be accompanied by symptoms pointing to an ectopic pregnancy, and yet they may, but all these conditions are such as to justify operative interference.

Menstrual Condition of Average Girl.

In order to determine in what degree normal menstruation differs among ordinary American girls of to-day, an investigation has recently been made by G. J. ENGELMANN (*New York Med. Jour.*), inquiring into the peculiarities of the function as it exists in 8,000 girls between fifteen and twenty-six years of age who attend high or normal schools or colleges, or are employed in department stores. It was found that it occurred with regularity in not more than 50 per cent., and that it appeared every 28 days in only 80 per cent. of cases. Irregularity increases directly with mental strain or physical exertion, the former leading to shorten the intervals, the latter to prolong it. The average frequency in one-fifth of the cases was 35-75 days, a prolongation probably due to change of habits. The average duration was 4-6 days, varying from two to seven days. Suffering is present in from 60 to 80 per cent., being less among the college girls than those occupied in stores. Among saleswomen who stand, 91 per cent. are afflicted with pain during this epoch and a large percentage are at least partially incapacitated for work.

Auto-transplantation of Ovary.

MAUCOALAN says:—It is sometimes impossible to leave a sound ovary *in situ* during a salpingo-ovariectomy. In such cases MAUCOALAN urges transplanting the ablated ovary elsewhere instead of sacrificing it completely. He has thus transplanted the ovary in seven women under the skin of the median incision or in the inguinal region, but he was obliged to remove it later in four cases, as the organ proved septic. In the three others it healed in place and is still palpable several months later. Menstruation has continued regular in one of the patients with a transplanted ovary after bilateral salpingo-ovariectomy. POZZI does not approve of the procedure, as he thinks that the transplanted organ will be absorbed or expelled as a foreign body. He believes that the disturbances attributed to the premature menopause have been very much exaggerated. BOUILLY has noticed that women near the menopause are apt to suffer more from these post-operative troubles, suggesting an "ovarian habit." JAYNE has recently called attention to the necessity of carefully testing the functioning of the ovary before operating. If there are evidences of ovarian insufficiency, there is little advantage to be derived from saving the organ.—*Jour. Amer. Med. Assoc.*

Hemorrhage after the Menopause.

The causes of hemorrhage after the menopause are given by DAVES as follows: (1) Granular endometritis, which can usually be relieved by aseptic scraping. (2) Atheroma of uterine blood-vessels, which offers but little prospect of relief, though change in the diet consisting of an abundance of well-cooked meats and fruit might prove of benefit with tonics and alteratives. (3) Venomotor relaxation is a possible source of hemorrhage, improvement of general health by the use of tonics, with special attention to the nervous system, will cure this disturbance. (4) Uterine polypus should be readily recognized and promptly removed. (5) Chronic myofibrosis covers too extensive a subject to be fully treated here. (6) The last cause, malignant disease, is the most important. He thinks that it rarely attacks the uterine mucosa, and generally involves some area or old laceration, especially of the cervix. Such injuries, therefore, should be attended to promptly. He does not credit the employment of pessaries to prevent conception with having much to do with the occurrence of cancer. The earlier the operation to detect the "tumor" the better. It is important to recognize early all cases of hemorrhage after the menopause, especially if there is any suspicion of malignant disease.—*Jour. Amer. Med. Assoc.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Pathology of Acute Ascending Paralysis.

There is considerable diversity of opinion as to the nature of the form of acute ascending paralysis described by LANDRY and known by his name, the disorder being unattended with macroscopic lesions of the nervous system; although of late, with the aid of refined methods of preparation and staining, microscopic alteration have been discovered in nerve-cells and nerve-fibers, sometimes in the periphery, sometimes in the cord and the brain. The belief is gaining ground that the disorder is an infectious one, but the final proof in this connection has not been brought forward. It is true that micro organisms have been cultivated from the nerves, the cord and the spinal fluid, but these have exhibited no constancy, and none of them can be looked on as specific. Such histologic changes as have been found have involved principally the ganglion-cells of the anterior horns of the spinal cord and the peripheral nerves, and the lesions have been thought to consist essentially in a parenchymatous degeneration of the peripheral motor neuron. SCHWAB has, however, recently reported a case, the histologic conditions in which lead him to believe that the process is rather an interstitial one, as exhibited mainly in an abnormal condition of the blood-vessels. The nerve-cells present only such slight alterations as could be explained by preagonal or *post-mortem* chromatolysis. The cord presented no degenerative or inflammatory alteration; there was no neuritis; but the blood-vessels and the perivascular lymph-spaces were in a condition of intense congestion, with thinning of the vessel-walls and escape of free blood into the nervous structures.

Influence of Alcohol upon the Liver.

GEORGE ROSENFELD says:—A review of the previous work upon the influence of alcohol upon the liver is given, and ROSENFELD then gives his own investigations, which consisted in the administration of definite amounts of alcohol to dogs which had been kept without food for six or seven days. The alcohol was administered through a stomach-tube in quantities of $3\frac{1}{2}$ to 4 cc. of 96% alcohol, given once or twice daily in large amounts of water. The animals were usually made decidedly drunk, but after as long as possible a period of poisoning they were killed before spontaneous death occurred. The livers were then removed, and the glycogen and the fat estimated by the methods of KULTZ and with SONHEITZ'S extraction respectively. The chief results of the investigation were that if doses of $3\frac{1}{2}$ to 4 cc. of alcohol per kilo of body weight were given as many as four times a day to starving animals, the liver was found to contain as much as 22% of fat—more than double the normal. The livers of such animals were found to be extremely poor in glycogen. The use of cane sugar with the alcohol decreased the amount of fat in the liver. When contrasted with the amount of alcohol which men take, it may readily be seen that as much as 4 cc. per kilo of body weight is often taken by men in the form of the heavier liquors, and that even two liters of PILSENER beer will contain as much as 1 cc. of alcohol per kilo of body weight. This demonstrates that it is entirely possible for alcohol to produce fatty liver and to decrease the glycogen of the liver. The use of alcohol over a period of days, with subsequent abstinence of the drug, was followed by recovery. This is analogous to the fact observed that a few large indulgences in alcohol do less damage than continuous tipping. The technical effect of the alcohol when sugar was given in analogous time to the fact

that is, man, if the alcohol is taken with food, it is borne better than when taken on an empty stomach; but the animals which were given the alcohol alone nevertheless lived longer than those that were given sugar with the alcohol, and it shows that one who "eats" when he takes alcohol is by no means secure from disease due to the alcohol.

Etiology of Acute Pneumonia.

HOWARD (*Cleveland Journal of Medicine*) reports the result of 174 autopsies. Of these, 67 were found to be acute non-tuberculous inflammation, of which 14 were primary pneumonia and 53 were secondary pneumonia. The pneumococcus was found in all cases of primary oropneus pneumonia, in pure culture in eight, with streptococcus pyogenes in one, and with bacillus mucosus capsulatus in one. In the 18 cases of secondary croupous pneumonia the pneumococcus occurred alone in six cases, streptococcus pyogenes alone in two cases, streptococcus pyogenes and staphylococcus aureus in two cases; streptococcus pyogenes and bacillus mucosus capsulatus in one case; streptococcus pyogenes and bacillus coli in one case, and bacillus mucosus capsulatus in one case in pure culture. Thus the pneumococcus occurred alone in nearly 50% of the secondary croupous pneumonias, while the streptococcus was concerned in the etiology of the same number, but occurred alone in only two cases. In all 18 cases the pneumonic process was clearly secondary and often accidental. One case of primary broncho-pneumonia was due to the pneumococcus alone, one to the pneumococcus and bacillus of influenza, and one to the streptococcus and to staphylococcus aureus. In the secondary broncho-pneumonias the pneumococcus occurred alone in eight cases, with staphylococcus pyogenes aureus in two cases, with bacillus coli in one case, and with streptococcus and bacillus mucosus capsulatus in one case; streptococcus pyogenes occurred alone in four cases, with staphylococcus pyogenes aureus in one case, with bacillus mucosus capsulatus in one case; staphylococcus pyogenes aureus occurred alone in three cases, with staphylococcus albus in one case, and with the pneumococcus in one case. Bacillus mucosus capsulatus occurred alone in seven cases, with bacillus coli in two cases; bacillus coli occurred alone in two cases, with "coli" in one case and with the pneumococcus in one case.

Nature of Infection: Contribution to the Knowledge of the Bacterium Coli.

DR. RADZIEVSKY (*Zeits. f. Hyg. u. Infek.*) says:—These papers deal with the subject of the methods by which pathogenic bacteria produce their injurious effects in the animal organism. It has been generally assumed in recent years that as the bacteria grow they produce, either as secretions or as bi-products of decomposition, certain toxic poisons which act directly upon the animal to produce the pathological symptoms. It has been held by some that in reality the toxic products are rather the result of death and destruction of the bacteria than of their active growth. In a long series of experiments, described more in detail in the second of the above papers, RADZIEVSKY has endeavored to investigate this question. His most important conclusions are: (1) That a fatal infectious disease is to be divided into two stages. In the first stage the pathological effects are the results of the active multiplication of the bacteria. In the second stage, however, there begins a destruction of the micro-organisms, and the pathological effects upon the animal are produced by the toxic bodies arising from their destruction. (2) The animal that is invaded develops the power of killing, and destroying the invading organisms. This power is due to materials present in the body fluids which are derived primarily from the living cells. The destruction of the bacteria takes place partly within the leucocytes, but chiefly outside of the cell bodies in the body fluids.—*Post-Graduate*.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

How Laundries may Spread Disease.

DR. JOS. FAIRBANKS, medical officer of health, recently reported on an outbreak of typhoid fever in his parish (Lambeth), which was distinctly traceable to the mixture of clothing in mangles working for the public. The mangles, in this instance, were the property of individuals who made money by treating clothes after they had come from a laundry. Mangling is a cheaper process than ironing, and is carried out by means of rollers under pressure. In this case no blame seems to have been attached to the public laundry where steam or boiling water is freely used. The typhoid infection was clearly traceable to the rollers on the mangles which had at some recent time been used upon clothing or bedding of some typhoid patient which had been imperfectly washed and disinfected. Bacteriological examination traced the infection to four mangles. A satisfactory feature of the outbreak is the fact that of the forty-one cases only three were not traced to their source. The preventive measures taken were as follows: discovery of all the cases by house to house inspection; notification of all the cases to the vestry; isolation of all cases in hospital; thorough disinfection of all premises, including the suspected mangles; thorough flushing of the gullies in the infected area; quarantining of suspected persons over the incubation period.

The incident should have an especial interest for Indian readers who know how clothes are washed and treated in this country. In spite of the copious water supply, clothes are frequently washed in impure tank or well water. They may, after this process, be taken to one of the most densely populated parts of Bombay to be ironed amidst the most insanitary surroundings. There may be a case of contagious disease in the next room, but the owner of the clothes has no means of knowing what has happened to them when out of his possession. A disgusting skin disease has been so often communicated through the medium of newly washed clothes as to have acquired its name from the *dhoti*. In Bombay we are very far from having all the advantages that should arise from laundry work. Setting apart the unnecessary destruction of clothing, no one can tell whether his apparel has been properly protected from infection. One of the leading men in Bombay, whose house on Malabar Hill was a model of cleanliness and good order, kept a *dhoti* in the compound and paid him well to wash exclusively for the household. This was not the *dhoti*'s idea of business. He simply used his patron's compound as an attractive address wherewith to advertise for additional work, to which unfortunately he was only too successful. For lack of adequate inspection the gentleman's premises, instead of being reserved for the use of the household, had become a public laundry, and all the security which should arise from washing at home was lost. Frauds of this kind have become so common in Bombay that the public seem to despair of a remedy, and yet promiscuous and reckless washing of clothes has been, and will continue to be, one of the contributory causes of the high mortality of the town.—*Municipal Journal*.

Unpolluted Water

PURE water is one of the problems of the age. How to prevent its pollution at the natural sources—lakes, rivers, springs—and to purify it by artificial means for drinking purposes, is agitating the public mind. How much more are physicians interested, to whom impure water is a familiar source of disease, and pure water a therapeutic agent of much value.

The old idea that running water, rain water, or water which has seeped through the earth is pure enough, has given way before more advanced scientific standards. The market contains every variety of filter designed to clarify and sterilize water. We also boil it. In cities, the universal demand for pure water has raised up large industries which purify water for household purposes by distillation and aeration. There is also an immense trade in spring waters, pure and medicated.

The demand for pure water is not a fad. There is water in every tissue and fluid of the body to the extent of

two-thirds the weight. The functions of digestion and nutrition are greatly affected by the quality and quantity of the water supplied them. The purer and softer the water, the better its solvent properties. The units needed for nutrition are normally obtained from our food, except in cases where prescribed medicinally. Therefore, the best way to obtain pure water is to distil and then use it. The result is water, and nothing else.

Each family should have a still, built out of doors, or under shelter, to prevent freezing, in which case the outflows should be provided with openings to admit fresh air in abundance while the still is in operation. The vessel which receives the distillate should be several inches from the mouth of the still, that the fluid may be heated salt drops.

Such water is as pure as can be made. It assimilates perfectly, washing out the tissues and taking up excess of mineral salts with increased efficiency.

Water absorbs impurities in the atmosphere, and when devoted for drinking purposes, should never be left unstoppered. This is the common practice in hotels, boarding houses, restaurants, etc., and should be stopped.—*Wed. Brief.*

Workmen's Compensation for Injury.

The estimation of disability and disease due to injury has received much attention from medical writers in Germany since the system of Government insurance against industrial accidents was introduced in 1884. The insurance against injury and disease is controlled by the German Imperial Insurance Bureau, and forms part of the great State System of Workmen's Insurance which has already had far-reaching results in regard to the facilities for systematic treatment after injuries to joints, in regard to the erection of sanatoria for the treatment of consumption, and in regard to provision for the aged poor, etc. English literature on the subject is still very scanty, and ideas are probably very vague as to the average amount of disability caused by various injuries and the compensation to which the injured workmen are entitled. In some cases the difficulty of deciding whether a disease is connected with the alleged injury or not must necessarily be great. It is only necessary to instance the occurrence of hernia, spinal affections, and tuberculous disease of bones and joints after injuries of great or slight degree. In other cases, probably in the majority, the connection between the original traumatism and subsequent temporary or permanent disability for earning wages is quite obvious, and Dr. WYATT JOHNSTON, of the McGill University, has recently drawn attention to the great importance of systematic attempts to estimate disability as percentage loss of working power. In his interesting and careful paper, Dr. JOHNSTON has compiled extensive tables of the average percentage disability due to permanent injuries and the average durations of the various kinds and degrees of temporary disabilities. Though more or less tendency to exaggeration is found in the majority of cases, the frequency of actual simulation, Dr. JOHNSTON thinks, is much smaller than would be gathered from medical literature. Attributing to a recent injury conditions which pre-existed is perhaps the most common form of simulation. The necessary postulates constituting proof of injury from accidents (sudden occurrence of the accident and its effects, etc.) are, however, he says, astonishingly often unproven. In deciding on the degree of disability likely to result from injuries, age, sex, previous disease, and habits, (especially alcoholism) have, of course, to be considered. The kind of work or occupation is naturally a most important point. Thus certain callings require special acuteness of sight and hearing. A sensitive ear on the hand might incapacitate an ordinary labourer completely, though it might not interfere with the finer movements of the engraver. Amongst other questions which might arise are whether the injured person can adapt himself to another occupation, and whether operative treatment with hope of improvement can be undertaken, though the patient must not be compelled to submit to any operation of a dangerous character, which includes any treatment necessitating general anaesthesia.—*Brit. Med. Jour.*

THERAPEUTICS & PHARMACOLOGY.

Criticism of the Report of the Anaesthetic Committee of the British Medical Association.

AUGUSTUS D. WALLER declares that clinical inquiry, as exemplified in the ninth and final report of the Anaesthetic Committee of the British Medical Association, has said its say after ten years of careful deliberation, and it is evident that further clinical inquiry on these lines can serve no useful purpose. As to the statement that the most important factor in the safe administration of anaesthetics is the experience of the administrator, and that often it is essential that a man of large experience should give the anaesthetic, the writer states that certain definite steps should be taken to the acquirement of knowledge in this branch, which will have an influence on the death-rate by anaesthesia: (1) An experimental examination of the statement that by proper application of a volumetric method anaesthetics can be certainly effected at any required degree. (2) An experimental comparison of the relative power of various anaesthetics. (3) The determination of the best method of quantitative estimation of anaesthetics in the various fluids and tissues of the body. (4) A careful re-determination of the statements made by SNOW, GREENST, PAUL BERT, and DUROIS, with reference to the percentage of chloroform required for various degrees of anaesthesia, and the percentage of chloroform in the fluids and tissues of animals variously anaesthetised.—*New York Med. Rec.*

Potassium Iodide: Method of Avoiding Unpleasant Phenomena.

WHEN iodide of potassium is administered in ascending doses for long periods, it is to a certain extent possible to prevent unpleasant phenomena by the conjoint administration of other drugs, such as arsenic and belladonna. While without these, symptoms of iodism may sometimes be prevented, or the intensity diminished by varying the salt used; these results are enhanced if the alimentary canal is looked after and the patient is instructed with regard to the use of food and alcohol. The chances of unfavorable symptoms are decreased by dilution with water or milk. If it is taken in large amounts with little fluid, it is retained much longer in the body than otherwise; whereas, if liquids in copious amounts are freely exhibited, elimination is facilitated, and at the same time favourable results are obtained.—LEWIS S. BOWENS (*Med. News*).

Antitoxin Treatment of Tetanus.

As a result of a careful study of this subject, MPECHEWITZ (*Annals of Surgery*) appends the following resume to his paper:—

All forms of tetanus are caused by the bacillus of NICOLAISM; hence the diagnosis rheumatic or kliepathic should have no room in our nomenclature.

The tetanus toxins appear to have a distinct affinity for the anterior horns of the spinal cord, which may be distinctly recognised by NISSE's method of staining. The cerebrospinal fluid of tetanus patients is more toxic than the blood.

The antitoxin therapy appears to have a distinct beneficial influence upon the course of tetanus.

With the antitoxin treatment the mortality percentage has been reduced from about ninety to forty per cent.

Although the use of the serum is a most important factor in the treatment of tetanus, the other recognised therapeutic measures should not be neglected.—*Therapeutic Gazette.*

Massage in Abdominal Tuberculosis.

DURANTE contends in this paper that before advising the operation of laparotomy in cases of tuberculous peritonitis, palliative measures should be given a fair trial, as many cases recover completely without being subjected to surgical interference. He claims a high place for abdominal massage amongst these palliative measures, if employed sufficiently early.

It is claimed that, in addition to the general beneficial effect produced by improving the nutrition, it has also a very marked local influence on the disease, facilitating not only the absorption of fluid, but by stimulating the action of the bowel it thereby lessens the pressure on the peritoneal surface. It also stimulates the abdominal circulation, and thus helps the process of absorption. The author reports three cases of tuberculous peritonitis in which this treatment was employed, in all of which the fluid was completely absorbed.—*Pediatrics*, Napoli.

Dewees' Emmenagogue Mixture.

THIS preparation H. O. WOOD relies upon almost exclusively in the treatment of simple uterine amenorrhoea. The amount of iron should be regulated according to the anemia; of the aloes, according to the bowels; of the cantharides, according to the susceptibility of the urinary organs. The formula is:—

R	Tinct. ferr. chloridi	...	...	3 flj.
	Tinct. cantharidis	...	...	5 j.
	Tinct. aloes	...	...	ss.
	Tinct. guaiac. ammon	...	...	4 ss.
	Syrup	...	q.s. ad	3 vj.

M. et. sig.: Tablespoonful three times a day.—*Therapeutics, Its Principles and Practice*.

Huchard's Pills for Hemoptysis.

THE *Presse Medicale* gives the following formula as particularly recommended by HUCHARD in the treatment of recurrent hæmoptysis:—

R	Ergotine	...	...	each 30 grains.
	Quinine sulphate	...	...	...
	Powdered digitalis leaves	...	...	each 8 grains.
	Extract of hyocyamus	...	...	...

M. Divide into twenty pills. From five to ten to be taken daily.

Correspondence.

REINSTATEMENT AND RESIGNATION OF HARI DATT PANT, LATE ASSISTANT SURGEON, N.-W. P. AND OUDH.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Several of my friends in service and outside have expressed their surprise at my having so unceremoniously resigned service after having fought so hard for reinstatement into service after my dismissal by the N.-W. P. and Oudh Government.

For their information, I give a brief explanation below as to the course I was goaded to adopt after having got myself reinstated into service on the 29th March 1901.

I intend to bring out, as soon as possible, in a pamphlet form, a complete exposé of the unjust treatment I have received at the hands of the N.-W. P. and Oudh Government since 23rd July 1899, the date from which my official troubles originated, and of extreme weakness, verging on to cowardice, of the Civil Medical Department of these provinces, as a duty to myself and to my brethren in service. But as this will take time, I hasten here to give my reasons for resigning service so abruptly.

I was dismissed from Government service of these provinces by G. O. No. 3159, dated 4th August 1900, II-285C, the order having retrospective effect from the 24th Feb-

ruary 1900, the date on which I was put under suspension. Will anybody believe me when I say that I was dismissed on the charge of "malingering" in the face of the medical certificate given to me by the Presidency Medical Board of Calcutta, testifying to my disease and uselessness for duty. Against this order I appealed to the Government of India in September 1900. On the 30th of March 1901 there appeared in the Government Gazette of these provinces two notifications:—

1474

1st.—of 29th March 1901, superseding my II-285C dismissal notification by my reduction from the 2nd to the 3rd grade from 24th February 1900.

1475

2nd.—of 29th March 1901, placing my services at the disposal of the Government of Bengal.

A *verbatim* copy of these gazette notifications was received by me from the office of the Inspector-General of Civil Hospitals, N.-W. P. and Oudh, on the 3rd April 1901, for information and guidance. I wrote to that officer the very day for a copy of the Government of India's order upon my memorial upon which these notifications were evidently based. He has not condescended even to acknowledge my letter up to this time, and I have now (on the 16th April) addressed a similar request to the Chief Secretary to the Government, N.-W.-P. and Oudh, and I hope to be soon favored with the copy, to which I believe I am entitled. I was really glad for the second notification, as I did not care to remain in service under the Government which had so persistently bullied me for the past twenty-two months without letting me know what I had done to deserve this fate.

When I analysed the first notification, which appeared harmless enough on the surface, my blood simply boiled with indignation. It is a frequent occurrence to see a member of the Provincial Service degraded a step, but then, by virtue of seniority, he manages to step into his old grade within a short time.

But has anyone ever heard of an Assistant Surgeon being reduced from a higher to a lower grade! I think mine is the first instance, and for the credit of the Government I hope it will be the last. I do not know whether this order emanated from the Government of India, or was a parting shot from the local Government.

Be this as it may, it was a most iniquitous order and carried its own condemnation along with it.

According to the departmental rules, an Assistant Surgeon must serve seven years in one grade and pass the septennial examination before he can be promoted to the higher grade. In the ordinary course of events, I should have got my first grade and Rs. 200 per mensem on the 1st May 1901, but after this reduction order I should not have been entitled to the first grade before 24th February 1914—a continuous punishment for fourteen years, and practically a fine of Rs. 8,400 to me!!! For what, nobody knows.

To return to service under such circumstances was totally out of the question. I had made up my mind

from the very beginning of my troubles that I would not go back to service unless and until full and unqualified justice was done to me. The administrative head of the Medical Department and the local Government were fully cognizant of this determination of mine. I went to Calcutta with the intention of obtaining extraordinary leave without allowances, in order to again represent the matter to the Government of India, and to point out the enormity of the punishment that was again inflicted upon me by the local Government. I failed to obtain this leave. I had now to choose between beginning my A. B. C. of service again on a magnificent salary of Rs. 100 per mensem with some prospects of bringing on a relapse of heart disease and diabetes which my trials and troubles since 23rd July 1899 had brought on in the beginning of 1900, or to chuck up the service under a thankless hierarchy in utter disgust, indignation and helplessness. I chose the latter.

Yours, &c.,
H. D. PANT.

TO HIS EXCELLENCY THE RIGHT HONORABLE GEORGE NATHANIEL, BARON CURZON OF KEDLESTON, M.A., P.C., G.M.S.I., G.M.I.E., VICEROY AND GOVERNOR-GENERAL OF INDIA.

The humble memorial of HARI DATT PANT, L.M.S., residing at Lucknow.

MOST RESPECTFULLY SHEWETH,—

That your humble memorialist was up to the 24th February 1900 a member of the Provincial Medical Service in the North-Western Provinces and Oudh, being a Civil Assistant Surgeon of the 2nd grade, and that by

3159

order of the local Government No. _____, dated 4th

11—285C.

August 1900, your humble memorialist was dismissed from the said service on the charge of "malingering," his dismissal taking effect from the date of his suspension, that is, 24th February 1900.

II. That your humble memorialist craves leave to set forth as below the circumstances which have led to his dismissal, and the records of your memorialist's previous service under the Government, for Your Excellency's generous and favorable consideration.

III. That Your Excellency's humble memorialist entered service on 1st May 1887, and from that time till the 23rd July 1899, when he was transferred from Gonda, he always maintained the character of a zealous, honest, and hardworking servant, devoted to his work, as the following remarks from the distinguished officers with whom it was his privilege to have come in contact show:—

Colonel RICHARDSON, the late Inspector-General, Civil Hospitals, N.-W. P. and Oudh, in his inspection remarks of the Gonda Sader Dispensary in 1891, remarked:

"This enormous expansion of work is most creditable to Dr. CAMERON and his Assistant Surgeon; the latter is one of the ablest men of his class in these provinces. Altogether this is becoming one of the most popular dispensaries in Oudh or the N.-W. Provinces—a result in no small degree due, Dr. CAMERON tells me, to the ability and energy of Mr. HARI DATT."

Colonel BARROW, the Deputy Commissioner of Gonda, on receipt of a copy of these remarks, observed:—

"I am glad to read this deserved notice of the Assistant Surgeon, who, in addition to his professional attainments, seems to have all the industry, patience, and kindness that make a successful medical practitioner."

Again, on the 11th August 1894, Captain PRATT, I.M.S., Civil Surgeon of Gonda, made the following remarks on your memorialist's application for transfer to Jaypore:—

"In forwarding the above application to the Inspector-General, Civil Hospitals, N.-W. P. and Oudh, for favor of transmission to the Surgeon-General with the Government of India, I have much pleasure in placing on record the high opinion which I have formed of the ability and attainments of Assistant Surgeon HARI DATT PANT, and in bearing testimony to the deservedly high character which he bears. He has been at Gonda nearly four years, and during that time he has won the confidence and esteem of all classes, and nearly doubled the attendance of patients at his dispensary. I consider him eminently deserving of advancement, and add my strong recommendation to his application."

In November 1898 Majors PRATT and VOST, I.M.S., strongly recommended your memorialist to the Inspector-General of Civil Hospitals for one of the Civil Surgeoncies reserved by the Government for members of the Civil Assistant Surgeons' class.

IV. That on the 23rd July 1899 orders were received by the Civil Surgeon of Gonda, directing the transfer of your humble memorialist to Azamgarh. The said officer (Major VOST, I.M.S.) had only a few minutes before the receipt of the said order given your memorialist a letter of introduction to the Inspector-General of Civil Hospitals, N.-W.P. & Oudh, in the following words:—

"Dr. HARI DATT PANT wishes me to give him a note of introduction to you on my leaving Gonda. I willingly do so, as I have known him intimately for the last three years here, and hold a very high opinion of his professional abilities, both as a surgeon and as a physician. In these words I know I am echoing the opinion held by Major PRATT, my predecessor. Dr. HARI DATT PANT is the best Assistant Surgeon operator I know; he has performed all kinds of operations that usually fall to the lot of experienced Civil Surgeons, and he is as good a physician as a surgeon. I shall at all times be pleased to hear of his advancement, and I am certain that if you have occasion to put him in charge of a big station, you would have no cause to regret the step taken. He is anxious for a change to a larger station than Gonda, in which he has served for eight years. He is now desirous of a change to a new and a better field. His character is unassailable, and he is popular with all classes."

On the 5th of August 1899, when your memorialist was about to start for Azamgarh, he received a telegram dated the 4th August from the Inspector-General of Civil Hospitals, "directing him to proceed to Banda instead of Azamgarh."

V. That in obedience to the said telegraphic order, your humble memorialist left for Banda with his family.

He there became aware, for the first time, that he was sent there on reserve duty and placed under an Assistant Surgeon whereas his junior in service, and which, in the case of a person of your memorialist's standing in the service, is looked upon as a penal measure. This gave your humble memorialist a most painful and unexpected shock, for the somewhat unusual manner in which he found himself transferred from a permanent service of twelve years to reserve duty under a junior Assistant Surgeon seemed to him to be nothing less than a measure indicative of severe displeasure for some fault or faults unknown to him.

VI. That your humble memorialist respectfully represented his grievances to the Inspector-General of Civil Hospitals on the 15th August 1899, and he humbly solicited that the reasons for this punishment may be communicated to him, and he may be permitted to explain and rebut the same. Having received no reply for a month, he submitted another memorial on the same subject on the 15th September 1899. In the meantime, owing to the troubled state of his mind and affairs, and the serious illness of his children, and also in order fully to represent personally his grievances to his official superiors, he took one year's furlough, of which he availed from the 4th October 1899.

VII. That on or about the 24th October 1899, your memorialist received a reply to his representation from the Inspector-General of Civil Hospitals, to the effect that his application to Government had been "received and noted, and that his fitness for a responsible post would be considered on his return from furlough." This reply being silent upon the matter alluded to above, which your petitioner attributed to his having in some way or other incurred the displeasure of Government, and which caused him no inconsiderable pain and anxiety, he asked for—and was kindly granted—an interview by the Inspector-General of Civil Hospitals, who assured him that, as far as the departmental office was concerned, there was no record against your memorialist, and that he (the Inspector-General of Civil Hospitals) had simply carried out orders in your memorialist's case, and that he was utterly powerless to help your memorialist in the matter.

VIII. That feeling it his duty to secure an early opportunity for clearing up his official character, your petitioner sought an interview with the Chief Secretary to the local Government, which was not granted and subsequently with His Honor the Lieutenant-Governor, which was also refused.

IX. That while smarting under the pain of what he considered to be an unmerited slur upon his twelve years' good and approved service, as his transfer to reserve duty was, and which received no inconsiderable addition from the fact that he had been condemned unheard, and that he had failed at every attempt he had made of obtaining a hearing, and while the dangerous illness of one of his sons came to fill up the cup of his misfortunes, which sensibly affected his own health, your humble memorialist was ordered to go to another province on family duty, and as it is his conduct sub-

sequent to this order which has led to his dismissal, your humble memorialist craves Your Excellency's pardon for explaining it, in the light of facts which he humbly hopes will appear to Your Excellency to constitute a sufficient explanation and defence of his position, as he proceeds to deal with the grounds upon which the local Government has thought fit to remove him from service.

X. That before submitting his answers to the charges contained in the Government order dismissing your humble memorialist from service, he may be permitted to invite Your Excellency's attention to two matters:—First, that your memorialist was never called upon to make his defence against the charge of "malingering" (of which he was for the first time informed through the order of dismissal) as required by G. O. No. 2276 of 19th August 1879; and secondly, that, having regard

to G. O. No. —, dated 31st August 1881 (Manual of 419-28

Government orders, N. W. P. and Oudh, for 1896, Vol. I, Appointment Department, page 7), the dismissal of an Assistant Surgeon in the Provincial List by the Local Government, without, as he believes, the sanction of the Government of India, is *ultra vires*.

XI. That the first charge against your humble memorialist is as follows:—"The Assistant Surgeon protested against his recall to duty, and objected to his transfer to the Central Provinces."

Your humble memorialist begs leave to submit that he did not protest against his recall to duty (how could he have done so, knowing, as he did, the rules of his service?), and did not object to his transfer to the Central Provinces in the sense of refusing to go there; but owing to his ancestral worries and anxieties and other domestic troubles, to which reference has already been made above, he certainly wished to avoid going to the Central Provinces if, under the rules of the service, he had any option in the matter. He submitted to the Inspector-General of Civil Hospitals the following representation, which will speak for itself:—"If under the rules of service I, as a member of the Provincial Service, have any option in the matter of my transfer to a different province, I should most certainly prefer these provinces to any other, and I trust that you will be good enough to take this point into your kind consideration." Your memorialist had no idea at the time that the transfer was only temporary, and as, when once in 1891 the services of some Assistant Surgeons were required in Bengal, his consent was asked as to his transfer to that province, and on his replying in the negative he was left to have his own choice in the matter, he, to the best of his belief, did not think that in showing his unwillingness to be transferred to the Central Provinces he was doing anything against the Government regulations.

XII. That the second charge against your humble memorialist is as follows:—"When the order to proceed to Nagpur was repeated to him, he represented in a letter, dated 27th *idem* (it ought to have been dated 30th *idem*), that "in consequence of the unsettled state

of his private affairs, he would be unable to pay that necessary attention to his duties and discharge them satisfactorily, and that, in the event of his not being allowed to avail himself of the full period of leave granted to him, he would be compelled to resign the service."

The words used by your humble memorialist in his letter dated 30th January 1900 were "troubled state of mind and affairs," and how this was brought about he has related in full in paragraphs numbered 5 to 9 of this memorial. To that your humble memorialist only wishes to add this, that as although his health had sensibly suffered from the shocks of misfortunes and had begun to show signs of progressive deterioration, yet he was not prepared to state any definite disease from which he was suffering without a careful medical examination, the need of which he, however, felt only soon after; and that, as under ordinary circumstances, representations such as he had made are accepted by Government, he thought that the grounds upon which he had expressed his unwillingness to go to the Central Provinces were sufficient for the purpose. Your memorialist felt his mental and physical unfitness to discharge his responsible duties, but was not able to satisfactorily account for that feeling, he naturally contemplated resigning service, in case he could on no account be spared from duty.

XIII. That the third matter against your humble petitioner is as follows:—"In objecting to his transfer to the Central Provinces, HARI DATT PANT did not put forward the plea of ill-health, but he subsequently proceeded to Calcutta, and there obtained a medical certificate from the Presidency Surgeon, which was countersigned by the Inspector-General, Civil Hospitals, Bengal, of his unfitness for duty."

As stated in the preceding paragraph of this memorial, your humble memorialist respectfully ventures to submit that he himself did not know for certain that he was suffering from any organic disease, and was not in a position to raise so definite a plea without having satisfied himself that his fears concerning his apparent ill-health were justified by expert medical opinion. The symptoms from which he was suffering could also have been explained by the constant worry and anxiety of which he had been a victim for the past six months. Your memorialist did not know, until he was examined at Calcutta, that he was really and seriously ill and suffering from "diabetes and heart disease." In accordance with the advice of the Civil Surgeon of Lucknow about consulting a non-official medical man as a preliminary step, and finding no non-official medical man of sufficiently high status in Lucknow, your memorialist wrote to Dr. JAMES R. WALLACE, M.D., F.R.S., of Calcutta, regarding his health, and on receipt of a telegram from him—"Come Calcutta immediately. Your health demands medical consultation"—he proceeded to Calcutta and presented himself for examination to Dr. WALLACE, who, on finding that your memorialist was suffering from "diabetes," sent him on to Lieut.-Col. R. H. CHARLES, M.D., F.R.S., who, not being a Presidency Surgeon at the time, referred the memorialist to Lieut.-Col. R. G. ROBERTS, M.B., B.S. This officer carefully re-examined him and sent him

before the Calcutta Medical Board, consisting of Colonel HENRIET, M.B., J.M.S., Inspector-General of Civil Hospitals, Bengal, its President, and Major PRINCEP, M.B., and MAHA, M.B., J.M.S., as members.

Your memorialist was re-examined by each member of the Board, after which the President countersigned the certificate. The question of the propriety of the memorialist's appearing before that Board, without the permission of the head of the department, was discussed at the meeting, and it was decided, after perusal of his transfer order to Nagpore, that as the memorialist was still on leave, permission was not necessary, and the countersignature of the Inspector-General of Civil Hospitals, Bengal, was quite sufficient to make the certificate valid.

XIV. That as regards the fourth charge—"His action was in entire contravention of the procedure prescribed by Article 894, Civil Service Regulations"—your humble memorialist admits that in his letter dated 16th February 1900, and again in his explanation dated 8th March 1900, he has fully explained that as your memorialist had not "applied for any leave or extension, or commutation of leave on medical certificate," vide Article 893, Civil Service Regulations, and as he had obtained the certificate from the Presidency Surgeons of Calcutta in order to enable him to submit a definite statement regarding his illness and incapacity for work, and as in this interpretation of the Civil Service Regulation article your memorialist was supported by the highest medical authority of Bengal—the Inspector-General of Civil Hospitals—he ventured to submit that Article 894, Civil Service Regulations, when read in conjunction with Article 893, Civil Service Regulations, did not apply to his case.

Your memorialist further ventures respectfully to submit that, even in case of unintentional violation of the Civil Service Regulation article, the punishment of suspension, followed by dismissal from service after 15 years' approved work, is out of all proportion to the gravity of the offence.

XV. That regarding the fifth matter—"Neither in his explanation, nor in the certificate obtained at Calcutta, is the disease from which the Assistant Surgeon was suffering specified"—your humble memorialist begs to submit that the diseases "diabetes mellitus and dilatation of the heart" are specified in the statement of the case as furnished by the Presidency Surgeon and submitted by the memorialist to the Inspector-General of Civil Hospitals, N.-W. P. and Oudh, on 17th March 1900.

XVI. That regarding the sixth allegation—that "A there was nothing in the Assistant Surgeon's condition to justify the grant of such a certificate, the Civil Surgeon of Lucknow declined to give him one"—your humble memorialist can only say that if the Civil Surgeon declined to give him a certificate before even examining him that it was after repeated requests that he examine his chest only; that, this being prior to his examination by the Presidency Surgeon, Calcutta, the memorialist could give him no hint as to his ailments, that knowing, as the Civil Surgeon did, about the memorialist's troubles, he suggested that he should get the

certificate from some non-official medical man as a preliminary step; and finally, that your memorialist went, under the circumstances, to confirm his inability to explain why, within the same week, the Presidency Surgeon and the Medical Board of Calcutta did, and why the Civil Surgeon of Lucknow did not, give him a certificate.

XVII. That as regards the seventh observation—that "The Medical Board in these provinces failed to discover any organic disease in the memorialist, and declared him fit for duty"—your humble memorialist may be allowed to submit that the opinion of the two Medical Boards that met on the 25th May and 29th June 1900, respectively, were not communicated to him (for the fact of the meeting of two Boards would seem to require some explanation), and that since they examined him some four or five months after his examination at Calcutta, the most that could be inferred from their decision would be that at the time they examined him his health had improved—the correctness of the certificate of the Calcutta Medical Board remaining unaffected.

XVIII. That it would appear from what has been submitted above that the order of dismissal passed by the Local Government, on the ground that the petitioner has been "guilty of malingering in refusing to comply with the repeated orders communicated to him to proceed to the Central Provinces" does not rest upon good and valid grounds; that his objection to his transfer to the Central Provinces was a *bona fide* objection and was not inconsistent with the rules or the general practice of the service; that he was really ill and unfit to discharge his duties, and the certificate of the Presidency Surgeon, countersigned by the Inspector-General of Civil Hospitals, Bengal, ought to have been accepted as conclusive upon this point; that in getting himself examined by the Presidency Surgeon of Calcutta, he did not knowingly commit any breach of the regulations; and that, even if he be held to have committed a breach, his offence, under the circumstances, hardly called for the severe punishment which has been meted out to him; that when the Medical Board of these provinces had pronounced him fit for duty, he should have been allowed to join his appointment; and finally, in view of his past good service, his case was deserving of a more lenient and indulgent treatment.

XIX. Your humble memorialist therefore humbly and respectfully prays that Your Excellency will be gracious enough to take his case into Your Excellency's favorable consideration and to reinstate him in his post from the date of his dismissal.

And for this act of justice and kindness, Your Excellency's humble memorialist, as in duty bound, shall ever pray.

TRADE NOTICE.

"TABLOID" ERGOTIN.

Messrs. BURROUGHS, WELLCOME & Co. have produced a 1-gr. sugar-coated ergotin tablet. The drug is the British Pharmacopoeia solid extract, but of proved potency. Clinical observations go to show that the preparation in this form is far more permanent than liquid extract, while its solubility is unquestionable. The tabloid ergotin is put up in bottles containing 100.

Government Medical Gazette.

BOMBAY.

The following transfers are sanctioned:—

- Hosp. Asst. Lillaram Utamchand, from gen. duty, Sukkur, to N.-W. Ry. Locomotive Diap., Sukkur.
- Hosp. Asst. Lillaram Nanumal, from gen. duty, Hyderabad, to gen. duty, Kotri.
- Hosp. Asst. Badhakishin Tashlam, from gen. duty, Hyderabad, to gen. duty, Shikarpur.
- Hosp. Asst. Bograj Chandnmal, from gen. duty, Hyderabad, to gen. duty, Sukkur.
- Hosp. Asst. Shewandas Sachmal, from gen. duty, Hyderabad, to gen. duty, Jacobabad.
- Hosp. Asst. Jhamatmal Pannamal, from Jamroo Canal Diap., Digvi, to Pilgrim Camp at Budhapur.
- Hosp. Asst. Vitthal Appaji Sarnalakar, from third famine duty, to gen. duty, Bombay.
- Hosp. Asst. Ramchander Babaji Shimpri, from Famine duty, to gen. duty, Bombay.
- Hosp. Asst. Wasdeo Arjun Sawant, from gen. duty, Bombay, to gen. duty, Ahmednagar.
- Hosp. Asst. Bhagwant Gopal, from Famine duty, to gen. duty, Bombay.
- Hosp. Asst. Prabhaabanker Ramchander, from Famine duty, to gen. duty, Bombay.
- Hosp. Asst. Yeshwant Shridhar Baid, from Diap. Shahada, to Diap. Hikal.
- Hosp. Asst. Dharmastal Narayan, from Diap. Haveri, to Diap. Kumta.
- Hosp. Asst. Mahadeo Marastar, from Prison Hosp., Dharwar, to Diap. Haveri.
- Hosp. Asst. Keshav Govind, from Diap. Kumta, to Prison Hosp., Dharwar.
- Hosp. Asst. Eeskiel Reuben, from Diap. Mahad, to Civil Hosp., Mahabaleshwar.
- Hosp. Asst. Antaji Gopal, from Civil Hosp., Mahabaleshwar, to Diap. Mahad.
- Hosp. Asst. Ramkrishna Sakshwar, from Diap. Borsad, to Diap. Dumas.

BENGAL.

Mily. Asst. Surgn. J. E. L. Chinnai is apptd. to act as Med. Offr. of the E. B. S. Ry. at Sara, during the absence, on leave, of Mily. Asst. Surgn. J. R. Rodricka.

Mily. Asst. Surgn. J. E. L. Chinnai was on plague duty at the Howrah Ry. Stn., E. I. Ry., from the 14th March to the 14th April 1901.

Lieut.-Col. R. N. Campbell, I. M. S., Offg. Civil Surgn. of Purnea, is apptd. to be a Civil Surgn. of the first class, from 17th Dec. 1900, *vice* Lieut.-Col. J. Lewtas, I. M. S.

Lieut.-Col. R. N. Campbell, I. M. S., Offg. Civil Surgn. of Purnea, is apptd. to act as Civil Surgn. of Dacca, during the absence, on leave, of Lieut.-Col. R. Macrae, I. M. S.

Maj. J. H. T. Walsh, I. M. S., Civil Surgn. of Murebidabad, is allowed privilege leave for three months from the 10th May 1901, or any subsequent date on which he may avail himself of it, and is permitted to combine with it furlough for nine months.

Lieut.-Col. T. Grainger, I. M. S., Civil Surgn. of Darbhanga, is apptd. to act as Civil Surgn. of Murebidabad during the absence, on leave, of Maj. J. H. T. Walsh, I. M. S.

Capt. G. W. T. Buchanan, R.A.M.C., in ch. San. Insp., Dum-Dum, is apptd. from the 10th April 1901, to have ch. of the Civil Med. duties at that stn. in addn. to his own during the absence, on leave, of Maj. D. Henney, R.A.M.C.

Dr. J. L. Hendley, Offg. Health Offr. of the Port of Calcutta, is allowed privilege leave for forty days from the 15th May 1901, or any subsequent date on which he may avail himself of it.

Lieut.-Col. R. Macrae, I. M. S., Civil Surgn. of Dacca, is allowed privilege leave for one month and nineteen days, from the 28th April 1901, or any subsequent date on which he may avail himself of it, and is permitted to combine with it furlough for one year, three months and eleven days.

Asst. Surgn. Brij Nath Shaha, in med. ch. of the Chittagong Hill Tracts, is allowed privilege leave for one and a-half months, from the 20th April 1901.

Asst. Surgn. Jadhav Kripot Sen, of the Contal Subdivn. and Diap., is apptd. tempy. to have med. ch. of the Chitta-

young Hill Tracts during the absence, on leave of Asst. Surgn. Broje Nath Saha.

Senior Asst. Surgn. S. N. Chowdhury made over ch. of the Jessore Jail to Lieut.-Col. D. Basu, I. M. S., on the 4th April 1901.

Asst. Surgn. Amulya Chunder Champati made over ch. of the Krishnagar Jail to Major J. G. Jordan, I. M. S., on the 8th April 1901.

Asst. Surgn. G. G. Mookerji, B. A. M. B., made over ch. of the Khulna Jail to Lieut.-Col. E. C. Banerji, I. M. S., on the 14th April 1901.

Asst. Surgn. Mohendra Nath Das is appointed to act at the Ghatal Subdivn. and Diapny in the Midnapore dist., from the 29th March 1901 during the absence, on deputation, of Asst. Surgn. Debendra Nath Dey.

Asst. Surgn. Mohendra Nath Das did supy. duty at the Med. Coll. Hosp., Calcutta, from the 22nd to the 23rd March 1901.

N. W. P. AND QUDEH.

Hosp. Asst. Imdad Khan, attached to the Police Hosp., Sitapur, to the ch. of Sadar Diapny, Sitapur, from the 10th April 1901, as a tempy. measure.

Civil Asst. Surgn. Nil Ratan Banerji, on plague inspn. duty at Ajodhya in the Fyzabad dist., to the ch. of Sadar Diapny, Sitapur.

Retired Mily. Asst. Surgn. and Hony. Maj. O. Cordell, from plague inspn. duty at Naini in the Allahabad dist., to that at Dehra Dun.

Civil Asst. Surgn. Gopal Chandra Gupta, from the ch. of Sikandrabad Diapny, in the Baladshahr dist., to plague inspn. duty at Naini in the Allahabad dist.

Civil Asst. Surgn. Pratab Chandra Roy, from plague inspn. duty at Naini in the Allahabad dist., to plague duty at Sheogarh.

Hosp. Asst. Muhammad Bakhs, attached to the Shahganj Diapny, in the Fyzabad dist., having passed the professional exam., is promoted to 1st grade without English qualification from the 15th Oct. 1900.

The services of Hosp. Asst. Ganga Sahai, attached to the Bikanir Diapny, in the Bikanir dist., are placed tempy. at the disposal of the Govt. of Punjab.

Hosp. Asst. Ahmad Hussain, attached to the Harraiya Branch Diapny, to the ch. of Sadar Diapny, Basti.

Civil Asst. Surgn. Baljnath Vias, on reserve duty at Fyzabad, to plague inspn. duty at Ajodhya in the Fyzabad dist.

Civil Asst. Surgn. Bholu Nath, on reserve duty at Fyzabad, to the ch. of Sadar Diapny, Basti, as a tempy. measure.

Civil Asst. Surgn. Sidhi Charan Mitter, attached to Haldwani Diapny, Naini Tal dist., performed plague inspn. duty at that sta., in addn. to his Diapny duties.

Hosp. Asst. Faisul Hasan, attached to the Zaidpur Branch Diapny, in the Bara Banki dist., to the ch. of Sadar Diapny, Bara Banki, as a tempy. measure.

Hosp. Asst. Khubi Ram, attached to the Jail and Police Hosps., at Kheri, to hold ch. of the Sadar Diapny, Kheri, in add. to his own duties as a tempy. measure.

Civil Asst. Surgn. Nil Ratan Banerji, attached to Sadar Diapny, Sultanpur, to plague inspn. duty at Ajodhya in the Fyzabad dist.

Civil Asst. Surgn. Gopal Das Verma, attached to the Sadar Diapny, Basti, to plague inspn. duty at Paritagarh.

Civil Asst. Surgn. Nripendra Chandra Mukerji, attached to the Sadar Diapny, Paritagarh, to plague inspn. duty at Paritagarh.

PUNJAB.

Asst. Surgn. Balkishen Kaul, Lecturer on Medicine and Materia Medica, Lahore Med. School, obtained privilege leave on full pay from the 27th July to the 6th August 1900.

The one month's privilege leave granted to Asst. Surgn. Harnarain, Hoshiarpur Diapny, from the 18th Jan. 1901, was extended by two days.

Asst. Surgn. Harnarain resumed ch. of the Hoshiarpur Diapny, on the 19th Feb. 1901, relieving Asst. Surgn. Hardial Singh.

Hosp. Asst. Hardwar Lal, doing gen. duty at Rohtak, was apptd. to the Jail and Police Hosps. Rohtak, from the 1st April 1901.

Hosp. Asst. Farooz-ud-din, doing gen. duty at the Jail Hosp., Ludhiana, was placed in ch. of that Hosp. from the

15th Dec. 1900, also 1st Class Hosp. Asst. Natha Singh, placed on gen. duty at that sta.

Hosp. Asst. Mohendra Nath Mukerji, doing gen. duty at Umbaila, was placed on plague inspn. duty at Kalka from the 16th March 1901.

Hosp. Asst. Ganesh Das, Anandpur Diapny, Hoshiarpur Dist., obtained privilege leave from the 15th to the 20th March 1901, during which period Hosp. Asst. Ghulam Muhammad held ch. of the Anandpur Diapny.

On being relieved of the ch. of the office of Civil Surgn., Muzaffargarh, Asst. Surgn. Jowahir Singh was placed on gen. duty at Bialkot from the 1st April 1901.

On transfer from Lahore, Hosp. Asst. Ibrahim was placed on plague duty at the Kalka Road Inspr. Post from the 15th March 1901.

Hosp. Asst. Fattah Muhammad resumed ch. of the Ramnagar Diapny, Gujranwala Dist., on the 2nd April 1901, relieving Hosp. Asst. Latha Ram, placed on gen. duty at Gujranwala from the 3rd April 1901.

Hosp. Asst. Liaqat Hussain resumed ch. of the Western Jumna Canal Diapny, Rohtak, on the 8th April 1901, relieving Hosp. Asst. Abdul Hamid, placed on gen. duty at Rohtak.

BURMA.

Major A. R. P. Russell, I. M. S., on proceeding on furlough, made over, and Captain J. Penny, I. M. S., assumed, ch. of the Civil Surgeoncy of the Myingyan dist. on the 27th March 1901.

Hospital Asst. Abdur Rahman, on return from leave, assumed ch. at the Gen. Hosp., Rangoon, on the 28th March 1901 as a supy.

Hosp. Asst. Abdur Rahman, on transfer to Myitkyina, relinquished ch. at the Gen. Hosp., Rangoon, on the 30th March 1901.

Hosp. Asst. D. Swami Das, on transfer to Papun, relinquished ch. at the Gen. Hosp., Rangoon, on the 31st March 1901.

Hosp. Asst. Mahomed Abdul Karim relinquished ch. at the Police Hosp., Bhamo, on the 15th Dec. 1900, and assumed ch. at the Outpost Hosp., Lwegibum, Bhamo dist., on the 18th Dec. 1900.

Hosp. Asst. Abul Hussain relinquished ch. at the Outpost Hosp., Kamalung, Mogaung sub-divn., on the 20th March 1901, and assumed ch. at the Police Hosp., Myitkyina, on the 24th March 1901.

Hosp. Asst. Syed Abdul Ghanny, on proceeding on three months' privilege leave, relinquished ch. at the Outpost Hosp., Endawgyi, Mogaung sub-divn., on the 13th Feb. 1901.

Hosp. Asst. Maung Shwe Chene assumed ch. of addnl. duties at the Police Hosp., Sagaing, on the 16th Feb. 1901.

Hosp. Asst. Maung Shwe Chene assumed ch. of addnl. duties at the Lockup, Sagaing, on the 16th Feb. 1901.

Hosp. Asst. K. G. Mariassani Naidu assumed ch. of addnl. duties at the Outpost Hosp., Myitmu, Sagaing dist., on the 14th Feb. 1901.

Major J. W. Stewart, I. M. S., on proceeding on furlough made over, and First Class Mily Asst. Surgn. A. H. Nolan assumed, ch. of the Civil Surgeoncy of the Akyab dist. on the 1st April 1901.

Mily. Asst. Surgn. W. M. St. Hefferman, on proceeding on leave on med. certificate made over, and Asst. Surgn. E. L. Po Key assumed, ch. of the Civil Surgeoncy of the dist. on the 2nd April 1901.

Hosp.-Asst. Sawan Singh was on duty in the Shan States, from the 13th Dec. 1900.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Re. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

PRALL.—At Rawalpindi, on the 24th April, the wife of Captain C. B. Prall, Indian Medical Service, of a daughter.

DEATH.

DAVIS.—On the 31st April, 1901, at Hongkong, C. L. Grace, the daughter of Mrs. and Mr. C. E. Davis, Assistant Surgeon,

ORIGINAL ARTICLES.

DIAGNOSIS OF ECTOPIC PREGNANCY BEFORE RUPTURE, BASED ON ELEVEN CASES.*

BY J. F. BALDWIN, A.M., M.D.,

Surgeon to Grant Hospital; Fellow of the American Association of Obstetricians and Gynecologists, etc., Columbus, Ohio.

"No authentic description exists of an unruptured tubal pregnancy" (LAWSON TAIT, "Diseases of Women," 1889, page 451). "I defy anybody to have diagnosed such a case beforehand, for the woman had not even missed a period" (*ibid.*, page 452).

Our real working knowledge of extrauterine pregnancy dates back only about twenty-five years. Previous to that time these were reported from so-called accidental hemorrhage into the peritoneum, and also deaths from intraperitoneal and extraperitoneal hæmatocele. Many cases had been reported of foetuses found in the abdominal cavity and of lithopedions found many years after the pregnancy from which they dated their origin; but it was not until twenty-five years ago that from a careful study of these cases, and as the outgrowth of these late diagnoses, data were arrived at from which we derived accurate knowledge of the pathology of ectopic gestation.

While a few years ago the rank and file of the profession could not but regard as extraordinary the diagnostic acumen of the men who could make the diagnosis of tubal pregnancy on the occurrence of rupture, at the present time, with the increase of literature on this subject, and our better knowledge of its symptomatology, intelligent physicians everywhere expect uniformly to make a correct diagnosis on such occurrence. The sharp, colicky pains, the syncope and the collapse, at once attract attention and point almost unerringly to the diagnosis. But a diagnosis deferred until rupture has occurred necessarily results, in a large proportion of cases, in being but the mere preliminary to a fatal termination. The patient may be far removed from surgical assistance, and death may occur long before such assistance can be obtained.

With our present knowledge on this subject, I believe it is now possible, in a fairly large proportion of cases, to make a diagnosis of tubal pregnancy before the occurrence of rupture. This statement, I know, is in direct contradiction to statements made by Mr. LAWSON TAIT in his published writings of 1888 and 1889; but the profession at large knows much more of ectopic pregnancy now than it did ten years ago, when Mr. TAIT reported that he had seen but one case of ectopic pregnancy before the period of rupture, and in that did not make the diagnosis at the time of the examination, but found the ruptured cyst three days later at the operation, which had been made imperative on account of the supervention of alarming symptoms.

It is true that in many cases of tubal pregnancy no symptoms occur which lead the woman to suspect that anything is wrong, least of all to consult a physician, until the occurrence of alarming symptoms due to rupture and the resulting hemorrhage. Nevertheless there are unquestionably very many cases in which symptoms do arise, and in which a physician is consulted, and in which a presumptive working diagnosis is clearly possible.

There are no pathognomonic symptoms of tubal pregnancy or of any other form of ectopic pregnancy. Usually, however, we find the following points: The patient gives a history of several years of sterility (many exceptions); she has missed a menstrual period, perhaps two of them (numerous exceptions); she has noticed some unusual pains in the pelvis, which she will probably describe as boring, griping, or colicky in character, these pains being situated usually in the region of an ovary; she has perhaps, within a few days of the time of consulting her physician, had a more or less irregular hemorrhage; perhaps has discharged pieces of membrane which she supposed indicated an abortion, and consults her physician with the idea that such is the case, owing to the hemorrhage and the pain and the suspicion of an existing pregnancy. Possibly, however, there has been no suspicion of a pregnancy, as the woman has accepted her sterility as incurable and has dismissed from her mind such a possibility.

On making a vaginal examination, if the conditions are at all favorable, the examiner will find upon one side or the other of the uterus, or back of it, a fusiform, quite well-defined cystic tumor of about the size of a pullet's egg or a little larger. This tumor will probably be quite tender on pressure, will be quite symmetrical in outline, and will usually be distinctly pulsating. When such a tumor is found in a woman in whom we have reasonable grounds to suspect a pregnancy; when the uterus at the same time is found somewhat enlarged and having the feel of pregnancy, but not enlarged as much as we would expect in a pregnancy of so long continuance as the history indicates, a presumptive diagnosis of tubal pregnancy is warranted, and the matter of an operation should be carefully and without delay considered.

There are a few conditions which give us the same kind of a tumor as is found in these cases. These conditions, however, are seldom accompanied by the other symptoms which have been enumerated, and are in themselves such as to warrant, if not to demand, operative intervention—as enlarged and adherent ovary in DOUGLAS' cul-de-sac cannot, perhaps, be differentiated from a tubal pregnancy in the same location. An old pyosalpinx, hydrosalpinx, a small cyst of the broad ligament, or an enlarged ovary in its normal location might be mistaken for an unruptured tubal pregnancy. It is not likely, however, that any of these conditions would be accompanied by symptoms pointing to an ectopic pregnancy, and yet they may; but all these conditions are such as to justify operative interference. If the operator, suspecting a tubal pregnancy, finds a pus tube, as I have twice done, or a cystic ovary, he has certainly benefited his patient by their removal; while if he finds an unruptured tubal pregnancy,

* Reprinted from the American Association of Obstetricians and Gynecologists at Louisville, and reproduced from the American Journal of Obstetrics by request.

he has, by a very safe operation, saved his patient from the gravest of dangers. In other words, he has performed an operation the mortality of which in experienced hands is almost nil; while the mortality of ruptured tubal pregnancy, while necessarily unknown, is certainly frightful.

In order to render the early diagnosis of ectopic pregnancy possible, it is necessary for physicians to learn to suspect it, and to examine with that suspicion in mind. The physician who, without making any examination, tells all middle-aged women who come to him complaining of irregular hemorrhages that they are merely having the change of life, will not likely make an early diagnosis of cancer of the uterus, and he will probably tell patients who come to him with symptoms of ectopic pregnancy that they are merely threatened with a miscarriage. He will make no further investigation, and will hence uniformly fail to make a diagnosis. The physician, however, who, having in mind the possibility of an ectopic pregnancy, thoroughly examines all patients whose history and symptoms point to this condition, will, in a large proportion of cases, make a correct diagnosis, and by prompt intervention will achieve a signal triumph for himself and his profession.

Menstruation.—One menstrual period, perhaps two, has ordinarily, but not always, been missed, or the last menstruation was in some particular irregular. There has occurred, perhaps, a dribbling of blood, but not a normal flow. There may have been a discharge of clots, or possibly a decidua membrane resembling the membrane passed in an early miscarriage. If such membrane can be obtained, microscopical examination showing the absence of chronic villi would render a diagnosis positive; but these membranes have usually been destroyed.

Sterility.—Not too much stress should be placed upon the previous sterility of the patient. This should be taken into account in a summary of the symptoms, but it is not of much moment, since in many cases there has been no such previous history.

Pain.—The pain of a tubal pregnancy is usually sharp and colicky in character and quite distinctly localized on one side, or it is of a dull, boring, constant character—a steady, severe ache. The pain in the one case is due to the internal stretching, with slight giving way of the peritoneal investment of the tumour. In the other, the pain is due to the constant tension of the tumour walls, but without as yet any local yielding. The sharp, colicky pain is therefore very apt to succeed the other in point of time. The pain may be severe, so severe as to result in some acceleration of the pulse during its continuance, but there is no elevation of temperature. Possibly the pain may be so severe as to result in fainting, but faintness is rather a symptom of at least partial rupture with some hemorrhage.

A woman who consults her physician presenting these symptoms, or several of them, should be at once carefully examined with the idea in mind of a possible tubal pregnancy. If that examination reveals a tumour such as has been previously described, the presumptive diagnosis

of tubal pregnancy should be made, and an operation unhesitatingly advised. The remote possibility of a mistake in diagnosis should be explained to the patient or her friends, but there should be no hesitation in urging an immediate operation. A slip, a misstep, any sudden alarm even, may in a moment precipitate rupture with all its unfortunate consequences.

At the Atlanta meeting of the American Medical Association (1896), in a discussion on this subject in the section of Diseases of Women, I reported five cases in which I had made the diagnosis and had operated on tubal pregnancy before rupture. (Two of these cases occurred in the same patient at an interval of eight months.) I believe I was the only one present who had ever made such diagnosis and had so operated. Since that time, however, a number of such operations have been made, and I think there can be no doubt that the time has come when such cases will be reported with increasing frequency until the diagnosis in suitable cases becomes recognised as an essential duty of the well-qualified practitioner.

This preliminary presumptive diagnosis must be made by the family physician. It will later be verified by the surgeon, but the early diagnosis of ectopic pregnancy, like the early diagnosis of uterine cancer and of appendicitis, must depend upon the education of the family physician.

The following six cases have occurred since the five which I reported in 1896:—

Case VI. April 24th, 1898.—Mrs. S., age 22; married two years; never pregnant; menstruation always regular. Menstruation came on at the usual time five weeks ago, but came on and has continued up to the present time merely as a dribbling of blood. Has always enjoyed excellent health. Knows of no reason for not becoming pregnant. Has been having a feeling of weight and bearing-down in the pelvis, with a constant aching sensation which she locates in the womb. Vaginal examination shows the uterus some what enlarged and pushed forward toward the pubes by a mass in DOUGLAS' cul-de-sac. This is elastic, smooth in outline, somewhat tender, but without general pulsation. As there has been no history of any trouble prior to the last menstrual epoch, the probability of a tubal pregnancy seemed great, and an exploration through DOUGLAS' cul-de-sac was advised. This was made two days later, and revealed a greatly distended tube without rupture, but with some free blood in the cul-de-sac, the hemorrhage having come from the open end of the tube. The specimen removed revealed a pregnancy estimated at about six weeks' duration.

Case VII. December 24th, 1898.—Miss McD., age 24, servant. Had one miscarriage at three months two years ago; no other pregnancies. Has not been entirely well since the miscarriage. Besides having had any pelvic disease; no dyspareunia. Was unwell regularly and normally two and-a-half weeks ago. Complaints of pain and bearing-down in the pelvis and back. Pains somewhat like labor pains came on just before the last menstruation and have continued ever since. Has had no

tupess. Has had no intercourse since menstruation. Vaginal examination shows a very tender mass back of the uterus, the size of a pellet's egg. This mass is excessively tender. She is positive that this tenderness has existed but for a very short time. Pulsation is distinct. The right ovary can be outlined; the left ovary also, but very indistinctly. The diagnosis seems to lie between a pus tube, which her history negatives, and a tubal pregnancy. Operation through the vagina, December 10th. The right tube was found in DOUGLAS' cul-de-sac, being held there by light adhesions. It was removed without difficulty, and the entire specimen turned over to the pathologist for examination. He reported later that the specimen was that of a very early tubal pregnancy. Impregnation in this case probably took place just before her last menstruation. (Saw a moribund case some years ago, in which fatal rupture of a tube pregnancy had occurred in a prolific multipara three weeks after the cessation of a perfectly normal and regular menstruation, and without the slightest suspicion of a possible pregnancy in the mind of the patient.)

Case VIII. May 5th, 1899.—Mrs. K., age 24; married four years; had a miscarriage during the first year of married life; no pregnancies since. Menstruated naturally, commencing on the 20th of March. Had always been very regular, and expected to menstruate April 18th. The flow did not come on, however, until the 28th; continued for about five days, then stopped one day, then recommenced, and has continued as a mere show up to the present time. During this time she has had more or less pain in the right side of the pelvis. This pain was described as "cramping" in character. Has never had the slightest irregularity in menstruation before. Examination shows the uterus retroverted and adherent. Back of it and low down is a tender, cystic mass, the size of a small hen's egg. This is also adherent. She is sure that this tenderness could not have been there but a very short time. Diagnosis of a tubal pregnancy was made, and an operation advised and made the next day per vaginam. The tube above the sac was ligated with catgut and the sac easily removed. Examination of the specimen verified the diagnosis.

Case IX. August 22nd, 1899.—Mrs. S., age 37; mother of five children, the youngest 3 years of age; was unwell last from the 20th to the 25th of June; has had no show since. Several times during the last few weeks has experienced cramping sensations in the abdomen, more marked on the left side. Four days ago was taken with severe pain in the lower abdomen and sent for Dr. MAYNARD, her physician. He found a tender mass on the left of the uterus, the exact character of which he did not understand, but which led him to suspect ectopic pregnancy. Pain still continues, but is less severe. On examination I found a well-defined mass to the left of the uterus, the uterus itself pushed over to the right. Could not detect pulsation. From the character of the mass and the history, confirm in the previous diagnosis of ectopic pregnancy and advise immediate operation, which was made the next day. On opening the vault of the vagina, found some blood which had extruded from the open end of the Fallopian tube. The tube itself was

distended to the point of bursting by the embryonic mass. In drawing the tube down into the vagina to effect its removal, it was torn off near the horn of the uterus. The hemorrhage following the tearing was not very great, but it seemed best to secure its effectual control by opening the abdomen. This was done, and the operation completed without any difficulty. Examination of the tumour revealed placental tissue and a very minute embryo. (This patient became pregnant normally in October and was safely delivered at full term.)

Case X. March 27th, 1900.—Mrs. S., age 30; mother of four children, youngest 2 years of age; no miscarriages, no history of any pelvic disease. Should have menstruated ten days ago, but had merely a show at that time. It came on freely, however, a week later, and there is still some dribbling; no clots. Commenced having pain in pelvis a week ago, but had severe pain in the right side of the pelvis and epigastrium two weeks ago. Still has pain in the right side; this spot is "sore." Has never had any such disturbance as this before. On examination find a tender, pulsating mass just back of the uterus and to the right, continuous with the uterus; is very tender; pulsates indistinctly; about the size of a hen's egg. Diagnosis of tubal pregnancy seemed plain. Operation made the next day showed an ectopic pregnancy in the right tube, which was in DOUGLAS' cul-de-sac and adherent. While breaking up the adhesions the sac ruptured, and the embryo was lost in the moderate hemorrhage which followed. Microscopical examination confirmed the diagnosis.

Case XI. May 19th, 1900.—Mrs. W., age 26; mother of one child, age 3 years; no miscarriages. Patient has always menstruated regularly and normally, the last time being March 1st. Some time after this menstruation she commenced having pains in the pelvis, especially on the right side. These have persisted until the present time, but have been much worse of late. She consulted her family physician, Dr. DIXON, some two weeks ago, and he at once suspected the possibility of an ectopic pregnancy. She declined an examination and passed from observation. Yesterday and last night she suffered with intense pain, and he was again called. On examination he found a condition of affairs confirmatory of his previous suspicions. Her pulse is good, but she complains of feeling short of breath and of pains resembling those of angina pectoris. Patient is quite fleshy, with thick abdominal walls; nevertheless an indistinct mass can be made out on the right of the womb. This is quite tender, but without any distinct pulsation. There was no tenderness in this region previous to this sickness. Advise that patient be prepared for an operation, an anæsthetic be given, and if examination confirm the suspicion of ectopic pregnancy, an immediate operation be made. The patient was at once transferred to the hospital, and this procedure carried out. The examination under the anæsthetic abundantly confirmed the previous suspicion. As the mass was higher up than usual in the pelvis, the operation was made by the suprapubic route. Some blood had escaped from the fimbriated extremity of the tube, but the tube itself had not ruptured. Examination of the specimen verified the correctness of the diagnosis.

ORGANISATION OF ASEPTIC OPERATIONS AND SOME OF THE CAUSES OF FAILURE.*

By C. B. LOCKWOOD, F.R.C.S.,

Assistant Surgeon and Lecturer on Surgical and Applied Anatomy at St. Bartholomew's Hospital.

WHEN you did me the honour to invite me to deliver an address to this Society, I had reason to think that it would meet with your approval if I took aseptic surgery for my subject. I propose, therefore, to speak about the organisation of an aseptic operation, and in doing so to stress upon some of the causes of failure. I am sure you will pardon me if I repeat what I have said elsewhere, for, as you are aware, this is not the first time I have dealt with this topic.

It is hardly necessary to begin with a defence for the manner in which the term aseptic will be used. In what follows it will be applied to the end, not to the means.

There can of course be only one kind of asepsis—that in which bacteria are absent; the means by which this end can be attained are of almost infinite variety. To endeavour to limit the use of the term aseptic to a method which relies entirely upon heat is doomed to end in inconsistency. Chemicals have to be used for the sterilisation of the hands of the surgeon and of the skin of the patient, and thus the domain of so-called "antiseptic" surgery is invaded. As soon as we admit that the end of aseptic surgery is the absence of bacteria, we have at once a simple test of success or failure, and a test which is very easy to apply. I have from time to time during the past ten years published reports in the *British Medical Journal*,† in which I have detailed the success or failure of the methods which I have been in the habit of using, and I now propose to give what is practically the substance of a further report.

THE STANDARD OF EXCELLENCE.

Since the earliest attempt the standard of excellence has become higher. For some time it has been my endeavour to attain sterility of the skin of the patient and everything brought in contact with the wound, and lastly, of the wound itself. No one who has not made this endeavour knows how difficult the task is to accomplish, or what careful organisation is required. Consider the matter in detail. What care has to be exercised by the house-surgeon or dresser who disinfects the skin of the patient; in the sterilisation of the instruments and utensils; in the sterilisation of the sutures and ligatures; and especially in the sterilisation of sponges and towels; in the performance of the operation to prevent contamination; and lastly, in the dressing and closure of the wound so prevent infection from without. This all implies the greatest care, not only on the part of the surgeon, but of all concerned; in other words, the organisation of the operation has to be perfection.

It is obvious that with so many possibilities of error asepsis must be difficult to attain. I myself have been able to record but few cases which have come up to the standard of excellence which I have adopted. With the

help of Mr. POLLARD, the House-Surgeon, I succeeded in the operation for the removal of a gutta serena in a case of appendectomy. Also, helped by Mr. BOSNOR, the present House-Surgeon, I have succeeded in a case of radical cure of hernia and in another appendectomy. In this the skin of the patient, the skin of the hands of the surgeon and of his assistant, the silk, the bathing gut, sponges and towels were all sterile, and finally nothing grew in culture tubes inoculated from the wound on the eighth to the tenth day. I believe that other surgeons are working on similar lines, and it would be interesting to learn their results.

To my mind, one of the leading characteristics of aseptic surgery is its extreme simplicity. I do not know of any detail which cannot be carried out in a private house as well as in the most elaborate and expensive operation theatre. In truth, I have sometimes thought the elaborate equipments of some theatres rather overwhelming. The use of foot taps, which often get out of order, seems rather superfluous if the surgeon does not know when his hands are sterile, never having tested the skin. Nor can I see the advantage of marble slabs if the sponges have not been submitted to investigation. Recently I had a striking instance of the value of the simple test which I am advocating. At the end of a hysterectomy, it was suggested that I should put some sterilised water in the abdomen with a view of combating the distressing thirst which so frequently follows an operation which is attended with some loss of blood. Before acceding to this request, I inquired whether the so-called sterilised water had been tested, and was informed that it had been tested twice, and in both cases contained bacteria, whereupon I declined to use it. Perhaps I ought to say that I may have been rendered suspicious by some serious cases of sepsis which had followed operations performed in the same place.

[After mentioning the details of the organisation of an operation, the preparation of the patient was discussed.]

DISINFECTION OF THE PATIENT'S SKIN.

Everyone is well aware of the extreme importance of the disinfection of the skin within the field of operation. It used to be the custom to begin the preparation many hours before the operation, and usually over night. After shaving and thoroughly washing with soap and water, the fat is removed from the skin with turpentine, a chemical disinfectant applied, and then a dressing adjusted with a view of preventing further infection, and of continuing the process of disinfection. A comfortable night is not likely to be passed by a person wrapped up in a moist and unaccustomed dressing. Happily our later methods of disinfecting the skin, if not perfect, are so efficient that the old method can be dispensed with, much to the comfort of the patient. Therefore, I am now in the habit of having the preparation and disinfection of the skin performed an hour or so before the operation, and in the case of a lady or of a child, it is deferred until they are under the anæsthetic. Obviously the cleansing of the skin of the cleanly gentle folk is not such a difficult problem as that of the hospital patient.

* Being an address delivered before the Leamington Medical Society, and reproduced from the *British Medical Journal*.

The disinfection of the skin is performed as follows—

1. It is unnecessary shaved.
2. It is thoroughly washed with soap and water to remove all dirt, superfluous epithelium, and sebaceous matter.
3. As much as possible of the remaining fat is extracted with ether, or turpentine, or benzine; of these, turpentine is probably the most convenient and perhaps the best; it can be obtained in almost every house, and besides being an excellent grease extractor, has some powers of disinfection.
4. After the thorough extraction of the grease, the skin is saturated for not less than two minutes with a solution of biniodide of mercury in methylated spirit (1 in 500).

The disinfection of the skin by this or any other process requires practice and minute attention to details. Some house-surgeons are very much more successful than others, and a good deal depends upon the region. The skin of the limbs is easy to disinfect, especially that in front of the knee, a point of some importance when we consider how often arthrotony is performed. The skin of the front of the abdomen is likewise easy, also the skin of the breast. The skin of the groin, scrotum, and scalp are difficult, especially the last. During the last two months we have tested the skin of the patient in some cases at the beginning of the operation, and in some at the end. In twenty-four tests made at the beginning of the operation it was septic five times, and in twelve tested at the end of the operation it was septic twice. It is natural to inquire whether these results have been obtained at the cost of much dermatitis. I perhaps am not an unbiased observer, and the question is not quite so easy to answer as might be thought. I should say myself that dermatitis was rarely caused by the disinfection of the skin by this method, provided that it was applied without unnecessary violence. When dermatitis has occurred, it has most frequently been caused by iodoform, by carbolic acid, or by one of the mercuric dressings. The idiosyncrasies of patients are very remarkable. Not long since a little finely powdered iodoform dusted upon the patient's face caused a violent dermatitis with large bullae. She said that iodoform had had the same effect before. I have seen dilute carbolic acid lotion act in the same way.

DISINFECTION OF THE HANDS.

There cannot be a more important question than the disinfection of the "principal instrument" of the surgeon, and perhaps I ought to add of the obstetrician and gynaecologist. When we make allowance for the infirmities of human nature, it will be readily conceded that the fewer the hands engaged in an operation, the fewer the chances of error. The surgeon, however, must in most cases have an assistant, and the nurses must touch some of the appliances. It is quite clear that the method ought to be simple, and not necessitate elaborate appliances, several sorts of chemicals, or complicated methods. Therefore, after the nails have been cut close, and all outside dirt and grease removed, we use the solution of biniodide of mercury and methylated spirit

which was used for the disinfection of the patient's skin. Not less than half a pint of this fluid should be placed in a capacious sterilised bowl. It is to be remembered that for many abdominal operations it is necessary to disinfect not only the hands, but also the wrists and forearms.

Our last tests of the results of this method are as follows: The skin of my own hands tested 24 times at the beginning of the operation was septic once; it was tested 12 times at the end of the operation and was septic thrice. The skin of the house-surgeons was tested 24 times at the beginning of the operation and was septic once, and 13 times at the end of the operation and was septic once; the skin of the nurses was aseptic on six occasions. I think I may claim that these results are good. Improvement has been steady, since everyone has learned to realise the difficulty of the task. It is interesting to observe that the hands which were used the most in operative manipulations were of most septic at the end of the operation. I think this fact will have to be taken into consideration, and that it may lead to some alteration in our methods.

As to the effects which this method of preparation has upon the skin of the hands, here again idiosyncrasy comes in. My own hands at once become rough and inflamed when brought in contact with strong solutions of carbolic acid or of sublimate. During the years that I had used spirit and biniodide of mercury I have hardly suffered at all from these inconveniences. Should the skin become rough during inclement weather, a mixture of glycerine and eau-de-cologne applied at night brings about a speedy cure. The house-surgeons and sisters likewise favour this method of disinfection, and it is not without significance to remark that since I introduced the use of the solution of biniodide of mercury and methylated spirit at the Great Northern and St. Bartholomew's hospitals, it has been adopted by nearly all my surgical colleagues.

STERILISATION OF INSTRUMENTS AND MATERIALS.

I now return to the remaining portion of the organisation of an aseptic operation. As far as possible, each step should be carried out under the direct supervision of the surgeon. Before proceeding to an operation, the necessary instruments are chosen and sterilised by boiling them for fifteen to twenty minutes in a solution of ordinary washing soda and water (1 drachm to the pint). They are taken out of this solution, and wrapped in antiseptic gauze and securely folded in an outside dressing. After the patient has been anaesthetised, it is a simple matter to place the instruments into a basin of 1 in 60 carbolic lotion ready for use.

I have not time to discuss the various materials which may be used for sutures and ligatures. For all ordinary cases it is necessary to provide fishing gut, and one or two sizes of twisted silk. For the neatest and most accurate closure of skin incisions the finest trout gut is best, and when it is fine the sutures may be placed very close together, with a correspondingly neat and accurate closure of the wound. A very accurately closed wound heals with extreme rapidity. In a few hours this may have gone far enough to prevent deep infection should the wound by any mischance become exposed to the air.

It is hardly necessary to remark how much the patient appreciates a scar which is almost invisible. For the ligation of small vessels, such as are met with in amputation of the breast, No. 00 twisted silk is quite strong enough, and I have never seen it reappear. Moreover, it is expeditious. Catgut, in the use of which I have had considerable experience, is apt to slip or break.

Of late years, where suppuration has occurred, it has almost invariably been due to a collection of blood in the depths of the wound. The blood, I think, escaped from the small arteries of our meshes, and these are difficult to secure even with silk. For abdominal wounds thicker fishing gut, and for pedicles thicker silk must be provided. The sterilisation of these materials is very simple; they are boiled for twenty minutes in water, and then placed in a jar of 1 in 20 carbolic acid for conveyance to the operating. Some time ago I was greatly troubled by the brittleness of the silk provided for my hospital operations, and I discovered that the house-surgeons were in the habit of boiling it along with the instruments in the solution of washing soda and water. The effect of the soda is to remove an element from the silk upon which its strength depends. The remedy for brittle silk is obvious. The results of this method of preparation are perfect. Our tests show that the silk was sterile 18 times before and 10 times after use; the fishing gut 15 times before and 10 times after use.

BURIED SILK SUTURES.

The success of many operations on the abdominal wall depends upon the precision with which the surgeon is able to introduce buried sutures. This remark applies especially to operations for the radical cure of hernia, to the closure of wounds in the abdominal parietes, to nephrorrhaphy, and to the closure of gaps left by the removal of tumours. In my last series of 50 cases of radical cure of non-strangulated inguinal hernia, there were two cases of suppuration. Doubtless the day will come when this will be improved upon, although I regret to say that the present series does not promise to be quite so good. Here I propose to refer to one of the difficulties I have met with in the practice of aseptic surgery. It is clear that if the silk extrudes, it is not the fault of the silk. Now, in operations for the removal of the vermiform appendix, it is an obvious advantage to close the abdominal wound with layer upon layer of buried silk sutures. In this way we may hope to allow the patient to resume his occupation at an earlier date, and at the same time be free from the risk of ventral hernia. With these objects in view, I have on ten occasions sutured the small abdominal wound after the removal of the appendix with four layers of sutures. First, a layer in the peritoneum; secondly, a layer in the internal oblique and transversalis; thirdly, a layer in the aponeurosis of the external oblique; and fourthly, a row in the skin. Now, although cases were chosen in which no pus was found, nevertheless out of the 10 cases treated in this manner three suppurated with extrusion of some, if not all, of the sutures. A percentage of nearly 30 per cent. was, to say the least, somewhat disconcerting. The proportion of suppuration in 33 similar cases closed with a single row

of fishing gut sutures was four, slightly over 12 per cent. But even this proportion is high when compared with the radical cure of hernia in which nearly as much silk is buried. I soon came to the conclusion that some of these failures were attributable to the nature of the operation, and that, as a matter of fact, the wounds became infected during the removal of the appendix. At that moment the interior of the appendix is opened, and in spite of the most careful precautions septic contents escape. Furthermore, I have now histological evidence that even in non-suppurating cases the inflamed tissues around the dissected appendix are often infested with bacteria. It is not to be wondered, therefore, that after appendix operations buried silk sutures are apt to be extruded. In support of the truth of this contention, I would add that, whilst these operations were being performed, large quantities of silk were buried in wounds in the abdominal wall in operations for the cure of ventral hernia (six cases), removal of tumours of the abdominal wall (four cases), nephrorrhaphy (five cases), and that none of these were followed by suppuration or by the reappearance of a suture. With regard to the four cases of suppuration in which single rows of fishing-gut sutures were used, one occurred in a case of tubercle of the appendix and some time after the wound had healed, another was due to hæmorrhage from the abdominal wall, another in a gentleman who was suffering from dysentery and malaria, and the last in a man with formidable adhesions, in whom a small laceration of the intestines occurred. I have not abandoned hope that we shall learn how to bury silk in the abdominal wall in appendix operations.

Fine silk has also been successfully buried for the obliteration of cavities after the removal of innocent tumours of the thyroid body and of the breast. This is the most effectual way of stopping hæmorrhage and shortens the time necessary for repair.

CATGUT SUTURES.

It is clear that it is unsafe to use silk to secure septic pedicles, such, for instance, as the meso-appendix in gangrenous appendicitis, or in perforation of the appendix with acute peritonitis. Under these circumstances, bacteria abound in the appendix and its mesentery, and likewise, I might add, in the omentum, should it happen to be involved. Therefore it is desirable to have at hand sterilised catgut. Inasmuch as this substance is made from the intestines of sheep, it abounds in bacteria, and as sheep sometimes die of anthrax, its dangers can easily be imagined.

Many of the methods for sterilising catgut are complicated and require special apparatus. The following is simple and reliable. The raw catgut is bought from the manufacturer or surgical instrument maker. The first step, as REYBAUD pointed out, is to extract the grease which has been rubbed upon it to give it a smooth surface; this is the only troublesome part of the process. The catgut is wound up on a flat board and thoroughly scrubbed with soap and water, next it is placed in a quantity of ether for not less than twenty-four hours, indeed the soaking in ether should be continued until globules of oil cease to appear, the catgut is transferred

from the ether to a watery solution of biniodide of mercury 1 in 250, in which it can be preserved indefinitely, but is not used until it has remained in the solution for at least 72 hours. Catgut treated in this way is quite strong after a lapse of many months. Different samples of it were sterile on the last five occasions on which we tested it; the fairness of the tests is due to the fact that catgut is so seldom used. I may add that catgut prepared in this way is most useful in cases of circumcision, and for suturing the wounds of children, who are so apt to be terrified at the extraction of sutures of silk or fishing gut.

OPERATIONS ON THE GENITO-URINARY TRACT.

Some other of the septic conditions which are present when the operation is performed seem to me not always adequately recognised. I know of no part of the body in which the results of operations are more influenced by pre-existent sepsis than those which are performed upon the genito-urinary tract.

Last year I had two striking instances. I had under my care at the same time two cases of urethrotomy which were almost identical in all respects but one. Both were men of about the same age. Both had narrow strictures in the penile urethra and impassable strictures in the perineum. In both the same operation was performed, but with very different results. I divided the anterior strictures by internal urethrotomy and the posterior after the admirable method of WHEELHOUSE. In the first case the urine was septic and contained a quantity of pus. The operation was followed by the usual signs of sepsis, the temperature ran up, the pulse quickened, the patient became exceedingly ill, and the large soft catheter which had been left in the bladder had to be removed on the third day, because the internal urethrotomy wound was septic. After having been very ill, the patient ultimately made a good recovery. In the second case an instrument had never been passed, the urine was clear, and was retained all night. The anterior stricture was divided from within, and the perineal stricture from without, and a full-size soft catheter left in the bladder. The patient, who had had malaria, had a slight attack after the operation. The bladder was thoroughly washed out twice a day with boracic lotion. The urine remained clear and acid throughout. The catheter was removed on the ninth day perfectly clean. A coude catheter was inserted for a few days longer. It is doubtful whether any urine ever escaped from the perineal wound, which was healed within three weeks. I cannot help attributing this remarkable result to the absence of sepsis.

Last year also two cases of cystotomy for papillomata afforded a similar contrast. A man whose urine was septic was seen with the cystoscope to have a papilloma near the neck of the bladder. This was exposed by suprapubic incision. Owing to hæmorrhage a clamp had to be applied to its pedicle. Immediately the ammoniacal urine began to deposit phosphates, and it was only with the greatest difficulty, and after the abundant use of acid lotions, that this was got rid of and the closure of the wound ultimately secured. The second case was that of a woman whose urine was clear and whose bladder was healthy, in spite of several small papillomata which could be seen with the cystoscope around its neck. Suprapubic cystotomy was performed and the papillomata destroyed with scissors and cautery. The abdominal incision and the opening into the bladder were closed with a single row of fishing-gut sutures. The urine never escaped from this wound, which was soundly healed within three weeks, although on one occasion shortly after the operation some pus and perhaps sloughs escaped with the urine. The decision to close the bladder in this last case was entirely based upon the absence of sepsis. In the first it would have been un-

wise to close the wound because of the presence of sepsis, even if the clamp had not been applied.

FISHING-GUT.

Fishing-gut is such excellent material for skin sutures and abdominal incisions that it is used by most surgeons. It is easily sterilised with heat and is boiled along with the silk. Some time ago we had to note an occasional failure, but the last 15 specimens tested before the operation were sterile, and likewise 10 tested after the operation. The thicker sizes ought to be boiled for at least 20 minutes. Perhaps I may refer here to one of the difficulties of aseptic surgery. With the finest kind of fishing-gut skin incisions can be closed with such accuracy as to be almost invisible. Last year I removed an innocent tumour from the thyroid body of a woman. It was globular and had a diameter of about 2½ inches, and required an incision of corresponding length. The cavity left by its removal was obliterated with buried silk sutures and the skin incision brought accurately together with the finest fishing-gut. At the end of three weeks I remember asking my class if they could discover what had been done, for hardly any trace of the operation could be discovered. Alas! within a month she returned with a thick line of red and obtrusive keloid. I do not know to what extent surgeons used to be troubled by the growth of keloid. I remember the late Sir JAMES PAGET telling me that he was always anxious lest it should follow operations upon the face. I cannot help thinking that keloid is especially prone to complicate wounds treated with chemicals. Therefore, in performing plastic operations upon the face, I have of late used 1 in 10,000 biniodide of mercury lotion, and contented myself with painting the wound with a little collodion. Should further protection be necessary, a little sterilised woolen gauze is applied.

SPONGES AND TOWELS.

I now come to the question about which there are differences of opinion. I have experience of various materials for clearing the wound of blood, but no swab that I have ever seen is as good as a sponge of good quality. I suppose those who scotch sponges do so because they have doubts as to their asepticity, and in my opinion the gravest doubts ought always to be entertained unless the sponge has been prepared and disinfected by the surgeon himself, or by some one upon whom he can implicitly rely. Furthermore, by whomsoever the sponges are prepared they ought to be submitted to frequent tests. It is hardly necessary for me to describe at length this most important part of the organisation of an aseptic operation. An ordinary round sponge of suitable quality costs about one shilling. The sand should be beaten out of it, the shell and coral dissolved with a dilute solution of mineral acid (sulphuric or hydrochloric). Next, the sponge is treated with a solution of washing soda to neutralise the acid and remove any albuminous material. Lastly, the sponge is disinfected and bleached by being submerged in a 1 in 5 solution of sulphurous acid in water. Our last results of this sulphurous acid method of disinfecting sponges show that 20 tested before the operation were all sterile, and likewise 11 tested after the operation. The credit of such good results is due to NURSE CARSON, who has never yet had a septic sponge or septic towel. The towels which are used to surround the field of operation and to prevent the ligatures, sutures, hands, or instruments being contaminated by contact with the clothing or undisinfected parts, are sterilised by boiling for half an hour in a boiler or saucepan. In hospital practice LAUTENSCHLAGER'S sterilisers are used because they are convenient; 18 towels tested before the operation were sterile, as were 11 tested after the operation. We have often exposed plate cultures of gelatine to the air of our operation theatre, and know that vast quantities of bacteria

fall from it upon the towel and field of operation. But they are not necessarily pathogenic. Dr. DETHLEF kindly exposed culture media whilst operations were being performed. He found on each occasion a growth of yellow bacilli, and of other common coloured organisms of the air. The sterile results after the operation seem therefore to be contradictory, but it is to be remarked that the sterilised towels are usually transferred from the steriliser into 1 in 40 carbolic lotion, and in addition during the performance of the operation they are occasionally washed with the biniodide of mercury lotion 1 in 2000 used for the sponges and for the hands of the surgeon and of his assistant. Presumably these chemicals suffice for the destruction of the organisms. Biniodide of mercury lotion possesses many advantages—first, it is perhaps the most powerful germicide; secondly, it is disinfecting; and, thirdly, it does not combine with albumen. Owing to this last peculiarity, it is often employed when other chemicals would be useless.

Not long since I operated upon a case in which a suppurating ovarian cyst had burst into the peritoneal cavity. The abdomen was full of pus, and after removal of the cyst its interior was thoroughly washed out with biniodide of mercury solution, 1 in 4000. The patient made an uneventful recovery, without any sign of mercurial poisoning. Had sublimate or carbolic lotion been used in this manner, it may safely be assumed that some of the chemicals would have remained in the abdomen in combination with the tissue and albuminous fluids. For similar reasons biniodide of mercury lotion is most efficacious for cleansing sponges. At the beginning of the operation a single sponge is handed to the assistant in a bowl of lotion, in which from time to time it is wrung out, the lotion merely requiring to be renewed.

For any operations a single sponge will suffice, and at the end is so free from blood and albumen that one often wonders whether it is really necessary for it to pass through the elaborate sulphurous acid method before being used for other operations. I have reason to be familiar with the use of sublimate lotion for cleansing sponges. After a little while albuminate of mercury collects in the sponge and it becomes inelastic and sodden, and incapable of taking up blood or any other fluid. It adds to the safety of the patient to be able to perform abdominal operations with a small number of sponges, four round and one flat suffice, and with so few it is difficult for any to be lost. In the choice of antiseptics I have learned to look with extreme suspicion upon the various patent preparations; many of them are mixtures of an efficient germicide with some kind of diluent; the germicide is dear, the diluent is cheap; the result can be imagined when it is remembered that profits are to be earned.

In conclusion, various occlusive dressings for wounds of the groin, scrotum, abdomen, and breast, and which Sister PAGE had very kindly prepared, were shown and described.

NOTES AND REFERENCES.

1 *British Medical Journal*, October 22nd, 1890, May 28th, 1899; January 27th, 1904; July 11th, 1904; and September 17th, 1904. The methods are given in these and in *Asiatic Surgery*, by G. B. Lockwood, 2nd edition, London, 1899.

2 The method of testing is exceedingly simple. A piece of skin, sponge, flannel, towel, and so forth, is cut off and dropped into a tube of antiseptic broth, which is placed in an incubator, at the temperature of the body, for a week, and the result recorded. Inasmuch as chemicals are used for keeping the instruments and flannels aseptic it is obvious that a little chemical is introduced into the broth with each test. To some this may seem a source of error, but this is easily put aside. I have added 50 drops of 1 in 1000 sublimate solution, and 50 drops of 1 in 50 carbolic lotion to the broth in a similar tube, and then grown ordinary *Staphylococcus aureus* in it: after the longest quantity of albumen is carried in the broth by bits of sponge, and I have inoculated some which remained sterile, and obtained a rapid and abundant growth.

3 Although the term biniodide of mercury is not quite correct, nevertheless it is in general use, and cannot easily be displaced. The solution of biniodide of mercury and methylated spirit is easily made by using calomel.

4 *British Medical Journal*, vol. ii, 1900, p. 383.

A MIRROR OF PRACTICE.

REMOVAL OF THE GASSERIAN GANGLION. SOME TECHNICAL POINTS.*

By CHARLES MACLACHLAN, M.B., CH.B., EDIN.

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and to the Women's Hospital, Sydney.*

A MAN, aged 45, consulted me for severe traumatic facial neuralgia, from which he had suffered for fourteen years. During that time he had had two divisions of his fifth nerve excised, and his skull trephined without permanent benefit. In October 1900 I removed his left gasserian ganglion; from that time, he tells me, he has had no pain. As neuralgia is a subjective phenomenon, we are not entitled to draw any conclusions as to the justifiability or effect of the operation without the experience of a very large number of cases; but during the operation, and on reflection since then, several points in technique occurred to me which seem worth recording.

The extra-cranial method of ROSEN appears much inferior to the intra-cranial method, and will therefore not be considered.

The following are the steps of the operation:—

- (a) Semi-circular incision, with its base on the zygoma, its circumference reaching to the temporal ridge; the base three inches long; this goes to the bone.
- (b) Chisel through bone all round incision, and lift up flap; or trephine through centre and then saw away fragments. A hole in the skull two inches by 1½ inch is necessary.
- (c) Strip duramater from middle temporal fossa with fingers and small saws on holders.
- (d) Search for middle meningeal artery; follow it up to foramen spinosum; pass a ligature round it and tie close up to the foramen cut.
- (e) A little internal and anterior to this expose the foramen rotundum with the third division. Before cutting this expose the second division of the foramen ovale still further anterior and internal.
- (f) Draw these nerves out of the skull for a little way and cut them; follow them up to the brain, and trace them to a pea-like body—the gasserian ganglion.
- (g) Make a semi-circular incision through dura mater above this body, exposing its internal aspect and the main trunk of the fifth nerve. Cut through this.
- (h) Seize ganglion with sinus forceps and twist it gently away.
- (i) Arrest hæmorrhage by sponge-pressure, pack tightly with gauze, and sew up wound.

The following are the special points upon which I wish to lay stress:—

- (a) After each of these steps considerable oozing occurs, and this should be entirely checked by sponge-pressure before proceeding further. Much of the reputa-

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tion for ~~the~~ attached to this operation is simply due to incomplete arrest of hemorrhage after each step. Great patience is therefore necessary, and two hours is a very fair time to take over the operation.

(b) I attach great importance to the middle meningeal artery as a guide to the foramen spinosum, and thence to the other foramina. If this be not allowed, the surgeon is apt to wander vaguely about all over the middle temporal fossa without finding anything. As for plugging the foramen spinosum with permanent foreign body, this seems to be unnecessary when it is not excessively difficult to tie the artery.

(c) The first division of the nerve must be avoided till the last moment, not, as BAUNTON recently said, for fear of the eye-ball sloughing, but because of its intimate relationship with the cavernous sinus. If one excises the ganglion, the eyeball must just take its chance, because the first division must go with the others. When the ganglion is twisted away, the nerve comes also with a tremendous rush of blood from the cavernous sinus; and it is to postpone this bleeding till the last that one leaves the first division intact as long as possible.

(d) Another point is not to cut the third division till the second division is exposed; otherwise the third division may be lost, as it resembles a tag of dura mater, and a useful guide to the ganglion thus be not available.

(e) Contrary to the statements in the text-books, I believe retractors to be not only useless, but a positive nuisance. They are in the way, and not nearly so efficient as the surgeon's fingers.

(f) An electric head-lamp is more than valuable; it is essential. The operation cannot be done safely without it.

(g) The following instruments are necessary:—Scalpel, dissecting forceps, artery forceps, chisel, mallet, trephine, elevator, bone forceps; long, fine, curved, blunt-pointed scissors and similar sinna forceps; small fine aneurism needle; swab-holders; head-lamp. But the more the surgeon uses his fingers in the intra-cranial work, and the less he trusts to elevators, retractors, etc., the less harm is he likely to do.

A CASE OF ACUTE INTESTINAL OBSTRUCTION DUE TO A PAPILLOMATOUS OVARIAN CYST AND A CARCINOMA OF SMALL INTESTINE: TREATED BY OVARIOTOMY AND ENTERECTOMY: RECOVERY.

By HORACE SAVORY, M.A., M.B., CANTAB., AND

W. GIFFORD NASH, F.R.C.S.

Bedford.

We have been unable to find any record of a similar combination of tumours, either of which might alone have given rise to the symptoms of intestinal obstruction which occurred in this case.

At the beginning of June 1900, Mrs. G., a widow, aged 45, believing she was in perfect health, rode a bicycle

from Bedford, to London, some 50 miles, in one day. On June 28th she rode the return journey against a stiff wind, and when nearing Bedford was seized with severe pain in the abdomen. On reaching home she went to bed and vomited several times. When seen twenty-four hours later, she exhibited all the signs of acute intestinal obstruction. The abdomen was distended, and its lower part occupied by a fluid swelling, which rose from the pelvis, reached to the umbilicus, and lay chiefly to the left of the middle line. For ~~some~~ a large solid mass could be felt in the pelvis to the left of the uterus. The tumour was extremely tender, particularly on its left side; the vomiting was not severe; but the bowels had not acted, and no flatus had been passed for twenty-four hours.

A diagnosis was made of a partly solid, partly cystic ovarian tumour, and it was thought that the intestinal symptoms were due either to twisting of the ovarian pedicle, or to pressure on the intestine by a tumour which had become impacted in the pelvis by the force used in bicycling.

The patient was advised to submit to an immediate operation, but declined, refusing to believe in the existence of any tumour. A morphine injection, a turpentine enema, and rectal feeding greatly relieved the symptoms, and next day the bowels acted and the vomiting ceased. The tumour remained extremely tender, and increased to double its size in a week. There was also a considerable amount of griping colicky pains.

On July 8th—twelve days from the onset of symptoms—ovariotomy was performed. During the preparation of the abdomen a large thin-walled cyst was felt to rupture. The tumour was a large multilocular papillomatous cyst arising from the right ovary, with a large solid mass the size of a fetal head, firmly adherent to the bowel, and when separated leaving at one spot a large white plaque the size of a penny.

In making a final examination of the pedicle preliminary to closing the abdomen, a hard lump was felt in a coil of intestine, and when brought into view this turned out to be an annular stricture caused by a solid growth completely surrounding the bowel, and apparently occupying its entire lumen. There were also some glands felt in the mesentery. The patient had been very much collapsed during the operation, and no further measures could have been undertaken at that time.

There were no unfavourable symptoms after this operation, but much flatulence and occasional twisting pain, apparently at the site of the intestinal growth.

On July 20th, that is, twelve days after the ovariectomy, the abdomen was again opened, and some 4 inches of small intestine removed with a V-shaped piece of mesentery containing some enlarged glands. The part removed appeared to be high up in the small bowel, and lay above and to the left of the umbilicus. The bowel was united end to end with the aid of an ALLINGHAM'S

bobbin. There was very severe hæmorrhage from dilated veins in the mesentery, and all the glands could not be removed.

The patient made an uninterrupted recovery. Contrary to expectation, the bobbin was passed per rectum on the fifth day, and the bowels continued to act naturally. The growth proved to be a cylindrical carcinoma, and the lumen barely admitted the passage of a goose quill.

At the present time, February 1901, the patient can walk about. No signs of recurrence can be felt from the abdomen or vagina, but there is pain and difficulty in passing flatus, though the bowels act freely with aperients.

A CASE OF CANCER (SCIRRUS) OF THE LEFT BREAST.

By DADABHOY P. PESTONJEE, G.H.M.S.,

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JANKER, aged about 30 years, by caste a washer-woman, resident of Ghati Butkur, a village in Karimnagar Taluka, Hyderabad, Deccan, was admitted into the Karimnagar Hospital for a hard scirrus growth, about the size of an orange, of a year's duration.

General condition.—The woman is weak, anæmic and emaciated (cancerous cachexia). Has a baby about six months old, whom she nurses with her other breast; complains of stabbing pain.

Local condition.—There is a hard, stony, nodulated growth in the left breast, about the size of an orange; it is slightly moveable; there is no ulceration, but the nipple is retracted and the skin is puckered in, and the lymphatic glands in axilla are not involved.

Operation.—On the 28th June 1899 the affected breast was washed with soap and carbolic lotions, and rendered thoroughly aseptic; the patient was placed under chloroform; two semi-elliptical incisions were made, one above and the other below the nipple along the fibres of the pectoralis muscle, and the whole breast excised; as the axillary glands were not affected, they were left alone; two or three bleeding vessels were ligatured, and then the whole surface was thoroughly flushed with mercury lotion (1 in 2000), dried and flaps sutured and dusted with iodoform and covered over with antiseptic gauze, and a bulky bandage applied; the wound was dressed every other day; the sutures were removed on the 10th July, and the patient left the hospital cured on the 16th July 1899.

FRACTURE OF THE SKULL: DEATH.

By DADABHOY P. PESTONJEE,

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In July 1899 a village girl, aged 8, threw a stone at the head of one RAJA MULLAS, a boy aged 7 years. The boy was immediately stunned, and was carried home in a state of stupor, from which he never recovered, and died early next morning. The body was sent to Karimnagar by the police for autopsy. On post-mortem nothing could be discerned externally, save a small black round mark on the temple near the right eye, and on dissection it was discovered that the squamous portion of the right temporal bone was struck, splintering the part to the extent of an inch, and detaching the frontal, parietal and temporal bones from their sutures and allowing the brain matter to ooze out underneath the scalp. On opening the thorax and the abdomen, the lungs, the heart, the liver, the spleen, the stomach and the intestines were found healthy and normal.

Remarks.—This case is a striking illustration of the ease with which a fatal fracture of the delicate bones of a child's skull may be produced even by a small weak girl.

NOTES ON REMOVAL OF UNDESCENDED TESTIS OCCUPYING INGUINAL CANAL.

By JOHN M. McDONAGH, M.D., BRUX, M.B.O.P., LOND., F.R.C.S.

Sydney.

J. C., aged 25, noticed since childhood that only one testicle occupied the scrotum. Twelve years ago a truss was ordered by his medical attendant, the use of which always caused him pain, so he only used it at intervals. On examination, the left scrotal cavity was empty, the right testicle being normally situated. An ovoid tumour having testicular sensation was found in the mid portion of right inguinal canal. Pain and inflammation were present. Castration recommended, which was performed. The divided extremities of sac of tunica vaginalis were sutured, forming an efficient plug in the inguinal canal, thus minimizing chance of hernial protrusion. There was a good deal of matting of the tissues in the canal from pressure of truss. The patient has married since and has a family. My only reason in bringing this case before you to-night is that it forms such a contrast with the case I have just read, proving what disastrous results may follow injuries to undescended testes. Some of the fetal relics are observable in the specimen which I am exhibiting, and one can readily imagine how easily cystic formations occur in such a condition.

Indian Medical Record.

15th May 1901.

DYSPEPSIA AND DILATATION OF THE STOMACH.

DR. WILLIAM MURRELL, M.D., F.R.C.P., Physician to and Joint Lecturer on the Principles and Practice of Medicine at the Westminster Hospital, London, in a paper published in the *Medical Brief*, discusses the treatment of dyspepsia and dilatation of the stomach. We call the essentials. The author pointed out the great strides that had been made in this connection of recent years. Cases of dyspepsia of long standing were either associated with dilatation, or were the result of it. The rational treatment was obviously to reduce the size of the stomach by running "tucks" in it—gastrorrhaphy. This was not an operation to be undertaken lightly; but in skilled hands, and with strict antiseptic precautions, it was practically free from danger. It was often difficult to diagnose the presence of malignant growth. The author then proceeded to compare the symptoms in dyspepsia and dilatation. There were many varieties of dyspepsia, such as nervous dyspepsia, gouty dyspepsia, and alcoholic dyspepsia; but the most common form was that due to gastric insufficiency. The symptoms were similar, and might easily be incorrectly interpreted. In dyspepsia there was pain or discomfort soon after a meal, chiefly in the epigastric region, but often extending over the whole abdomen and to the interscapular region, of a dull aching character, with depression of spirits, disinclination for mental or physical exertion, drowsiness, oppression and irritability: sometimes the pain was of a burning character with regurgitation of an acid bitter fluid, which arose from the lactic acid formed by bacterial decomposition of carbohydrates or from butyric acid and other products of fermentation: if there was vomiting, it occurred soon after a meal: the evacuations were solid, dry and hard. The pain of gastric dilatation was not experienced immediately after food, not associated with pyrosis and independent of the kind of food taken, relieved by vomiting or by syphonage; the vomiting was long delayed; the evacuations were shrunken and hard; there was much thirst; loss of flesh; temperature subnormal; patient feeble; urine scanty with triple phosphate in abundance; pulse weak; face pale and pinched; spirits depressed; sleep disturbed; headache; tinnitus; vertigo; and indications of auto-intoxication. Dyspepsia and gastrectasis had many symptoms in common, such as impairment of appetite, which in the latter was especially capricious; the delayed vomiting, the thirst, and the rapid emaciation in a case supposed to be dyspepsia, would excite suspicion of the existence of a dilated stomach. Chronic dilatation of the stomach occurred chiefly in women, and usually in women of middle age: if over 50, it was commonly associated with malignant disease. The physical signs were of the greatest value, and syphonage might be utilized in diagnosis. Gastrectasis was usually associated with some form of pyloric obstruction, possibly

malignant, but more probably due to constriction of the cicatrices of gastric ulcers. Enteroptosis or visceroptosis was a curious rare condition, in which the various abdominal organs became displaced from their normal position. As this displacement was nearly always in a downward direction, the term "dropping of the viscera" had been applied to it, and it was analogous to the "falling of the womb" in women. It was especially apt to occur in cases of dilated stomach associated with obstruction of the pylorus, and it was both a cause and an effect. The stomach was displaced to the left, and the enlarged pylorus, if it could be detected by manual examination, was found to be well over the left of the median line. For all practical purposes, however, dilatation of the stomach was a chronic affection, due either to malignant disease of the pylorus, or to the contraction resulting from the cicatrices of gastric ulcers. Acute gastrectasis was met with in the course of rheumatic fever and pneumonia, as a complication of phthisis, diabetes, and other diseases.

Treatment.—In dyspepsia it was necessary to remember that alkalies increased acid secretions and decreased alkaline secretions, and that acids increased alkaline secretions and decreased acid secretions. This was the keynote to the situation. Oil of cajuput was little known as a remedy in dyspepsia, accompanied by flatulence. Three drops on a piece of sugar or on a crumb of bread taken frequently was worth all the other remedies put together. It was not only antiseptic, but agreeable to take. Glycerine was an excellent remedy, and a teaspoonful in a wineglass of water flavoured with a few drops of lemon-juice would in many cases effect a cure. The author very often used glycerine and glycerine of borax, and a useful prescription was hydro-glyceride half a drachm, glycerine half a drachm, spirits of chloroform fifteen minims, syrup of lemon half a drachm, and water to an ounce. Capsicum was most useful in alcoholic dyspepsia and in the gastritis of drunkards. Minin or two minim doses were ample; but the tincture should never be given in an effervescing mixture, or the patient might be blinded. The custom of stimulating the mucous membrane of the stomach by the application of tincture of iodine was a good one,—ten minims of the tincture in an ounce of water, with half a drachm of glycerine, administered before food: the patient is directed to roll over from side to side once or twice so as to diffuse it evenly all over the lining of the stomach. It gives rise to no pain, but only a pleasant sensation of warmth, and the author had never known it do harm even when there had been reason to suspect the existence of ulceration. Bichromate of potassium was another drug which it was impossible to ignore. Professor J. R. FRASER, of Edinburgh, to whom we were indebted for the introduction of the remedy, had shown that it was capable of removing the entire group of symptoms encountered in dyspepsia, especially anorexia, pain, nausea, vomiting and gastric tenderness. It should be administered fasting in doses of from one-twelfth to one-sixth grain three times a day, either in solution or in the form of a pill. The solution might be conveniently flavoured with syrup of tolu or syrup of orange, and the pills were best made with Kaolin ointment.

In cases of gastric ulcer the results were just as favourable as in simple cases of dyspepsia, with the exception that in acute gastric ulceration with hæmatemesis the bleeding from the stomach was not checked. The author did not allude with favour to peptin, most of the preparations of which were unreliable. The treatment of dilated stomach was a much more serious matter. Electricity was useless, and massage failed to give good results. Lavage or syphonage was useful, but it was a slow, tedious and disagreeable process. To have to wash out the stomach every night and morning was a serious addition to one's other toilet requirements. The best plan was to have an operation and to get cured at once. Dr. WALLER then gave instances of the good effects of gastrostomy, or a combination of pyloroplasty and gastrostomy. He had been told that the operation was "unsurgical." He did not think so: but even if it were, it saved the lives of many patients. It had been said that it was just as absurd as it would be to treat stricture of the urethra by making tucks in a man's bladder. There was no analogy for the bladder was simply a receptacle, whilst the stomach was a secreting organ. Moreover, in his cases, the pylorus was always stretched, in addition to reducing the size of the stomach. But grant the analogy: one could scarcely suggest dilating the pylorus by passing a bougie up through the rectum. His point was that cases of chronic dyspepsia and of dilated stomach, and many cases supposed to be cancer of the stomach, could be cured by an operation.

CHRONIC SPLENIC ENLARGEMENT WITH RECURRING GASTRO-INTESTINAL HÆMORRHAGES.

We call the essentials from the columns of the *Edinburgh Medical Journal* of a communication on the somewhat rare affection chronic splenic enlargement with recurring gastro-intestinal hæmorrhages, from the pen of that eminent physician Dr. WILLIAM OSLER, M.D., LL.D., F.R.S., Professor of Medicine, Johns Hopkins University, Baltimore. Excluding the enlarged spleen of leukemia, chronic malaria, cirrhosis of the liver, heart disease, and rickets, the cases of so-called primitive enlargement of the organ fell into two groups:—

I. A series in which the spleen is enlarged without causing any symptoms, other than those due to mechanical pressure. The author had in recent years seen four such cases, all women, in two of whom Surgeon HALSTED had opened the abdomen and successfully packed the spleen in position with gauze, an operation much less serious than splenectomy, and very efficacious: both cases were quite well two years subsequently. In the third an ovarian tumour was suspected: the patient subsequently had a twist of the ligaments and sphacelus of the spleen, with enormous enlargement, adhesion to the abdominal wall, redness and inflammation. The organ was freely incised, and an enormous quantity of necrotic spleen tissue removed: the patient made a good recovery. This condition, the author thought, was more common than was suspected. The spleen was, as a rule, only moderately enlarged. In some cases a history of

past malaria would be found, but in the majority the condition was one of, so far as could be ascertained, primary enlargement. It should not be forgotten that only a blood examination could determine whether or not such patients had leukemia, since in this disease an individual might look well and have indeed nearly a normal number of red blood corpuscles.

II. Cases of enlargement of the spleen with anemia—splenic anemia. This term should be restricted to those cases in which a progressive anemia developed in connection with a primitive splenomegaly. The relation of the enlarged spleen to the anemia was still in doubt, whether the perverted state of the blood was due to splenic inadequacy (which did not seem probable, since removal of the spleen had cured some cases), or whether both the enlarged spleen and the anemia were due to some chronic toxæmia. In four recent cases the author had noticed the following peculiarities: (1) The remarkably chronic course, extending from three to twelve years: the chlorotic features of the blood, the hæmoglobin value often not more than 50 per cent: the peculiar bronzing of the skin, not a jaundice, which was not present in any of the four cases: and hæmorrhages which might be toxic as in leukemia and widespread or mechanical, resulting directly from the condition of the enlarged spleen. In calling special attention to this characteristic of hæmorrhages, the author pointed out that they were often profuse, occurring at intervals in a period of from nine to twelve years, while in between the patients regained their flesh and strength, and were able to carry on their occupations. Hæmorrhage in chronic enlargements of the spleen had been long recognised. In WATSON'S "Practice" the following explanation appeared: "It seemed highly probable that one at least of the offices of the spleen was to provide a receptacle or reservoir for this blood, when its free passage through the portal vessels is temporarily obstructed. It then becomes a sort of safety-valve (if such an illustration be allowable), which obviates the danger that might otherwise arise to more vital parts from any great or sudden disturbance of the venous circulation. The stress of the congestion is continually felt in the submucous capillary system: and the hæmorrhage which is apt in such cases to occur from the loaded membrane receives a simple solution upon principles almost purely mechanical." BALFOUR, GRAINGER, STEWART, GUSSELL, and CROSKERY had reported cases, but in the larger treatises it was either not discussed at all, or only in a very cursory way. Dr. OSLER here reports three characteristic cases. In the first, there had been recurring attacks of hæmatemesis and melæna between 1885 and 1897 with excellent health in the intervals. There was chronic enlargement of the spleen, and death resulted from the final attack. *Post-mortem* revealed chronic hyperplasia of the spleen, with a smooth liver macroscopically showing no signs of cirrhosis and microscopically only fatty changes. In the second case there was no history of malaria or of syphilis. The first attack of hæmatemesis had occurred nearly ten years previously, and at intervals of about a year very severe attacks supervened, in which blood was vomited and passed in the stools: the spleen was enlarged. Exploratory laparotomy was undergone: the stomach and

duodenum were found normal, the liver smooth and not cirrhotic. The enlarged spleen was removed, and complete recovery followed. In the third case there was again no history of malaria or syphilis; the first attack of hæmatemesis had occurred eleven years previously with recurring attacks of malæna during the next four or five years: in 1892 there had been a second attack of hæmatemesis, followed by an occasional attack of malæna: in January 1898 there was severe hæmatemesis and malæna. Great enlargement of the spleen was found, and there was marked anemia of the chlorotic type. The patient remained in hospital for a week, during which time he had no fever: the appetite was good and the general condition improved. He was urged to take iron and arsenic for two or three months and then return for an exploratory incision. Dr. OSLER looked upon the hæmorrhage as due entirely to mechanical causes. In none of the cases had there been associated cutaneous or retinal hæmorrhages, such as was often seen in leucæmia. In support of Watson's explanation, the author referred to the anatomical fact that a very large portion of the blood from the stomach was discharged into the splenic vein, and also that the veins of the vasa brevia passing from the fundus of the stomach were very large and drained a very large section of the organ. It was pointed out that the diagnosis of conditions associated with enlargement of the spleen was important, but somewhat complicated, owing to insufficiency of knowledge of the etiology of the various forms and of their relation to one another. It was doubted that a primitive splenomegaly with a practically normal blood count was first to be recognised. In chronic enlargement of the spleen there was, as a rule, anemia of a chlorotic type with low hæmoglobin and low leucocyte count. The more pronounced the corpuscular anemia became, the more striking were the changes in the red blood corpuscles, and in many advanced cases the blood might be like that of a pernicious anemia. The most confusing and puzzling condition, however, was that in which, with enlargement of the spleen, the condition of leucæmia might be presented during one month, and in the following that of a simple splenic anemia. Lastly came the question of the diagnosis from BANTE'S disease, primitive splenomegaly, with an associated terminal cirrhosis of the liver and jaundice. The author had never met with an instance. All his three cases reported above had the chronic character and the severe hæmatemesis, features upon which BANTE laid great stress, but in the first case there were no changes whatever in the liver microscopically, and macroscopically in case 2 the liver looked perfectly normal. In both cases also the area of liver dulness was reduced considerably, which led the author in the first case to regard the hæmorrhage as of hepatic origin. Moreover, a certain number of cases of splenic anemia presented ascites quite early in their course. An instance of this kind had been recently under the author's observation of a physician who had an enlarged spleen for at least four years with early ascites. Death occurred, and autopsy revealed only an enormously enlarged spleen without cirrhosis of the liver.

COMMENTS AND NEWS.

THE EDITOR'S HEALTH.

As one or two of his professional brethren in Calcutta have maliciously set afloat the most alarming rumours about Dr. WALLACE'S present state of health, it is necessary, for certain reasons, to refute these statements. They have gone far and wide, not only in Calcutta, but to the remotest parts of the Indian empire. It has been stated that Dr. WALLACE is suffering from cancer of the stomach, and that he lies at the point of death in hospital. The object of these wicked stories has been to hurt Dr. WALLACE'S practice in Calcutta, and to prevent patients from medical stations from coming to this city to consult him. Dr. WALLACE has received numerous letters from friends and patients in outlying towns, expressing their sympathy and anxiety, enquiring after his health. Many of his friends and patients in Calcutta have also called at his residence with similar expressions of anxiety and kindly enquiry. To all of these Dr. WALLACE desires to return his grateful thanks, and he takes this opportunity to inform each and all of them that there is no anxiety whatever concerning his health. Ever since the sudden death of his two children in the Darjiling disaster of September 1892, he sustained an apparently severe nervous shock, which was followed by a marked loss of flesh. He was medically advised eighteen months ago to go in for horse-riding—an exercise that he adopted immediately, and kept up steadily up to three months ago. As during the whole of this time he continued to lose weight, he was again advised by his medical friends to stop this form of exercise, with the result that he has gained flesh again to a fair extent; still the change in his appearance from being a stout man and his now thinned condition has caused anxiety to his friends, while his enemies have made this somewhat altered state of health an occasion for spreading mischievous stories as cruel as they are untrue. Dr. WALLACE has been at his work all the time during the past eighteen months, and not for a single day have his professional or journalistic duties missed his attention. Careful medical enquiry into his case bears evidence of good health and of no organic breakdown—in fact Dr. WALLACE feels well, eats well, works well, and sleeps well, the only change being his loss in weight. He has taken a brief holiday, so as to enjoy the benefit of rest and change to Darjiling, whither he has gone on the 1st May, returning to his duties on the 1st June. It is hoped Dr. WALLACE'S many friends and the readers of the *Record* will now be satisfied that the cruel, mischievous and wicked rumours about his approaching demise from some painful disease are utterly false and without foundation, and it is further hoped that they will not permit such malicious statements to pass unchallenged or uncontradicted. Leaving out of consideration the meanness of the conduct of these "brethren," it may be as well to warn them that they are amenable to the Indian Penal Code, and that a criminal prosecution may be instituted against them should witnesses be forthcoming who are prepared to place the evidence of these dastardly attacks against the fortunes of the Editor before a Police Magistrate.

QUESTION OF DIET IN BRIGHT'S DISEASE.

We quote the following from the *Charlotte Medical Journal*:—"We have on a number of occasions called the attention of our readers to the change which is taking place in the opinion of skilled clinicians concerning the diet which should be instituted in the treatment of chronic nephritis.

It will be remembered that on one occasion we pointed out that in many instances a diet of pure cream milk is very much better for the patient than a diet of skimmed milk, although the latter is the one which is usually advised; the advantage in the unskimmed milk being that which has been skimmed depending on the fact that it contains more of the cream, and is therefore more nutritious. While it is true that some patients are not able to digest the cream, others are quite able to do so, and should not be denied the advantage to be gained by this increase of nourishment.

Again, we quite recently called attention, editorially, to the fact that investigation failed to reveal any good reason for forbidding such patients the use of red meats and allowing them white meats; the two varieties of meat differing one from the other so slightly in their constitution that one could not be considered more harmful than the other. Our attention has been called once more to this important matter by the review of the treatment of BRIGHT'S disease which has been contributed by Professor J. ROSE BRADFORD, of University College, London, to the volume of "Progressive Medicine" for December 1900.

As he well points out, the principle of the treatment of BRIGHT'S disease is chiefly to spare the kidneys as much as possible, because of the very prevalent view that owing to the damaged condition of the renal structures the excretory activity of the organ is very considerably impaired, and for this reason it has been the custom to cut down the nitrogenous ingesta as much as possible. It is on this basis that the milk diet in BRIGHT'S disease was instituted. But the matter is not as simple as it seemed at first sight, since the proteid ingesta cannot be diminished below a certain quantity, and it is well known that during starvation the excretion of nitrogen is still fairly free. If proteid food is to be strictly withheld from the patient, his proteid tissues will undergo disintegration; and, on the other hand, if too much proteid is given, it may be disadvantageous.

It would seem probable, too, that in severe cases of nephritis there is a rapid breaking down of proteid material, so that the patient rapidly loses strength and weight, unless he is provided with a considerable quantity of food containing albumen, and, doubtless in many instances a rigid adherence to a strict milk diet actually tends to weaken the patient.

More recent clinical observers have shown themselves to be in favor of allowing a more liberal diet, on the ground that with the improvement in general health we might expect an improvement in the condition of the kidney. Or, to express it in BRADFORD'S words: The modern tendency is not to restrict the diet in cases of chronic BRIGHT'S disease to the same extent as was formerly the case.

Patient's with chronic BRIGHT'S disease may pass as much as from twenty to forty grammes of dry proteid in their urine each day—an amount equivalent to that found in one to two pints of milk. Inasmuch as the minimum amount of proteid necessary for an adult is that contained in from three to four pints of milk, namely, from seventy to eighty grammes, it is obvious that a milk diet may at times be insufficient. Further than this, it is perfectly possible that the administration of many pints of milk a day dilate the stomach and overload the digestion. While permitting the patient to see a liberal diet may considerably increase the amount of albumin in his urine, this should not be considered the chief gauge as to the advisability of this free feeding; but we should study the patient's general condition, and if he improves in strength and nutrition under the increased diet, it is a fair supposition that the advantages gained are of greater value than the disadvantages associated with an increased albuminuria.

MILLS had also recently written upon this subject, and expresses the belief that red meat is permissible to many of these patients once a day, and that chicken, eggs, and fish may all be used. There are two other points which it is important for us to remember in this relation. One is that alcohol should be forbidden to all these patients except in rare instances; and the other is that in acute nephritis, which is an entirely different condition from that which we have been discussing, a rigid milk diet is usually to be insisted upon.

These remarks are still further endorsed by the paper of ROBIN, of Paris, recently published and quoted in the *British Medical Journal* of October 13th, 1900:—

"In a paper on this subject read in the Section of Therapeutics at the recent International Congress of Medicine, ROBIN said it is recognized that the same system of diet is not suitable for all sufferers from BRIGHT'S disease. In particular the exclusive use of milk causes in some of them an increase, at least for a time, of albumin in the urine. Further researches prosecuted for many years have convinced him that an exclusive milk diet diminishes albuminuria always less than a vegetable diet, sometimes even less than the use of meat alone. In all cases a mixed diet of milk and vegetables, or of milk and meat, has a better effect than the exclusive use of milk. The following is the system that he adopts for the purpose of ascertaining the regimen most suitable for each patient. He begins by giving only milk. This has the effect of first increasing the amount of albumin in the urine; then it diminishes, and remains stationary. At this stage vegetables are added to the diet. New oscillations are then produced; when these have ceased, meat is cautiously allowed, whilst milk and vegetables are continued. In this way it is easy to ascertain which of the three systems of diet—milk, milk and vegetables, or milk, vegetables, and meat—brings about the most marked diminution in the amount of albumin eliminated. It is important also to ascertain the value of each alimentary substance in regard to the production of albuminuria. Some researches which Dr. ROBIN has made on this subject have led him to the following conclusions: Bread has no effect on the albumin; wine causes an increase; amongst meats, beef and veal are more to be recommended than mutton or fowl; fish should be forbidden."

PRESENT TREATMENT OF SYPHILIS.

In the *Medical Times and Hospital Gazette*, WM. ALLEN PUSEY, A.M., M.D., publishes an excellent article on this subject. The writer disclaims the idea that he has any new plan of treatment to offer, or any radical departure from accepted methods to suggest. Times and men change, methods in medicine come and go, but the essential factors in the treatment of syphilis remain essentially unchanged. He directs attention then to some of the moot points concerning the details of treatment, with the idea of provoking a discussion on this important subject.

Abortive Treatment.—He takes it as accepted that syphilis is a disease due to a definite organism, one, however, not yet discovered. The infection is at first local, seated at the point of inoculation. Thence it spreads chiefly by way of the lymphatics, to involve the tissues at other points. Following the view that the disease is at first confined to the point of inoculation, the effort has been made to abort the disease at this point before general infection has occurred. This attempt has gone along two lines—first, by completely destroying the virus at its primary seat, by excision or cauterisation; secondly, by the use of mercury upon the first manifestation of the local lesion, with the hope that the infection may be at once destroyed. Total excision or destruction by cauterisation, Dr. PUSEY thinks, have strong theoretical grounds in their favor; but in the nature of things it is impossible to furnish conclusive evidence of success, since a conclusive diagnosis cannot be made before

the development of constitutional symptoms. Suitable cases are relatively few, since excision must be done before the contiguous lymphatics are involved. The procedure is not justifiable later than a week after the date of the appearance of the lesion. The abortive treatment by constitutional mercurial treatment does not offer the same hope of successful destruction of the disease, and is open to the grave objection of obscuring the diagnosis.

Use of Mercury during the Primary Stage.—It is admitted that the use of mercury during the primary stage will make the healing of the sclerosis more rapid and will postpone and minimise the secondaries. Here is the objection to the method. There is no good evidence that the early administration of mercury tends to cut short the disease, or prevent more effectually its later manifestations; it does, however, so interfere with the early course of the secondary period, that a positive diagnosis may be made impossible. Nothing is more vitally important than the positive determination of the fact whether a suspicious lesion is, or is not, syphilitic. Until vastly more weighty facts in favour of the specific treatment before the development of secondaries can be produced, such treatment must remain unjustifiable in ordinary routine cases.

Treatment of the Initial Lesion.—This should be on general principles, cleanliness, and mild antiseptics in the form of powders or lotions. Neither plasters nor ointments are cleanly, and they are not generally satisfactory. Dr. PUSEY knows no method so satisfactory as that of KEYES. The sore is dried, and a drop of liquid carbolic acid is applied chiefly as an anæsthetic; then nitric acid is applied till the lesion is thoroughly cauterised.

Measures Preparatory for General Treatment.—While waiting for the evolution of secondaries, the mouth should be looked after, carious teeth treated and tartar removed. The patient should begin frequent brushings of the teeth, together with antiseptic mouth washings. The intestinal tract should also be put into as good order as possible, and the skin kept healthy by frequent bathing. Seborrhoeic dermatitis of the face should be treated if present, as it tends to exaggerate the eruptions on the face.

General Management of Syphilis.—The general health must be put in vigorous condition. When this fails, we must fall back on fresh air, sunlight, rest, change, cod-liver oil, and general tonics. In severe cases, milk and the various systems of forced feeding have a place. The effects of alcohol are about the same as when syphilis is absent; there is no ground for its arbitrary prohibition. The use of tobacco has a most unfavourable influence upon the condition of the mouth.

Mercurial Treatment.—Dr. PUSEY begins with the daily inunction of 40 grs. of 50 per cent. mercurial ointment, till the gums are touched, then the dose is decreased. This is continued for thirty days, when treatment by the mouth is begun and continued for the rest of the course. The bichloride is used, beginning with one-twelfth of a grain, t. i. d., and increased till the gums show slight tenderness. If emergencies arise, he relies on vigorous inunctions, and exceptionally on deep injections of soluble salts of mercury; one per cent. solution of the bichloride or succinimide are given in 15 mm. doses daily as an average. The indication for the use of iodides is the occurrence of gummatous lesions, at whatever time they arise; this drug is not curative of syphilis in the sense in which mercury is. In late manifestations, mixed treatment is more effective than that by the iodides alone.

[I have never seen excision of the primary lesion practised in London, and very rarely cauterisation. I do not practise either for this reason. There is a latent period, so-called, of some three weeks before the primary sore develops. The microbes have been located in the tissues, therefore, for this period. There is not the slightest reason for assuming that they are not growing and invading the lymphatics during all this time. Indeed, considering the minuteness of the original abrasion, which is so seldom even suspected by the patient, only a very few microbes can be inoculated at the first; but the earliest sign of a lesion is a papule due to the production of toxin by the microbial colony, and consequent chemotaxis and round-celled infiltration. This manifestation cannot be due to the few microbes originally implanted—they must, therefore, have multiplied; if they have multiplied, they must have grown along the lymph-spaces and lymphatics. Consequently, by the time the papule has formed, the infection must have gone out of reach. The slow-growing microbes may not have multiplied enough to cause induration of the glands, but they are almost inevitably there by the time the papule has appeared. When the primary lesion and the nearest glands are undoubtedly indurated, I hold that the diagnosis of syphilis is certain, for other microbes invading the sore and glands will cause acute irritation and suppuration, as is seen in a mixed infection. When this occurs, the diagnosis has to wait till local antiseptic treatment has destroyed the saprophytic microbes, then the syphilitic induration will remain, and can be diagnosed. When once this diagnosis is made, I hold that mercury should be begun, not because the disease can be aborted, but because it can be very greatly restrained throughout; both early and late manifestations are almost entirely prevented in a large proportion of cases when this course is pursued.]

A LAYMAN ON QUACKERY.

THE excellent editorial comment on this subject by the New York Sun should not go by unnoticed. It shows a just appreciation of the problems involved.

"It is a curious characteristic of human nature, or of a great deal of human nature, that people who grudge paying a cent to a regular medical practitioner will cheerfully pay a great deal of money to an irregular medical practitioner. Go where you will, and you will find the quack prosperous. His rooms are full of patients and his patients are full of faith. Men and women will buy wondrous remedies from travelling mountebanks who do not disdain to sing a comic song on the wagon from which they peddle their nostrums. Natural bonesetters, and long-haired "Indian doctors," and botanic doctors ignorant of botany, and faith healers of many kinds, abound, and the trade of most of them is good. The world likes to be healthy, but it loves to be humbugged.

"If a thousandth part of the blind, unhesitating faith that cleaves so readily to incompetent and often illiterate practitioners of fantastic means of healing were bestowed upon religion, there would be no complaints that the churches are not filled. But often those who are full enough of doubts of the supernatural, so far as it relates to their souls, are quick to believe in an almost or altogether supernatural gift of quack salves to cure the body.

"Legislation can do but little, if anything, to interfere with the gains of the medical pretenders or of the professors of visionary and semi-religious medical 'science.' You cannot legislate away a state of mind; and the state of mind of thousands, perhaps millions, of persons

is one of crass credulity in humbug. Their delusions and illusions can be removed only by experience and a wider knowledge. They take their own lives and the lives of their families in their hands when they neglect the methods and the agents of modern medicine and surgery and resort to the moonshine of Christian science, or to any other crack system, or to any individual quack. But you cannot prevent people from killing themselves if they have the will; and you will only stimulate faith in quackery by giving it a chance to pull 'Persecution'. A private arrangement between patient and 'healer' will satisfy any provision of law forbidding the 'healer' to heal for a consideration. A gift can take the place of a fee; and 'gratuitous' treatment can be acknowledged with a gratuity.

"The best way to deal with a delusion is to let it alone. Common sense, most wise in the end."

MONOTONY IN READING.

THE *Medical Brief* says:—Dulness, a monotonous routine, a stagnant atmosphere of life, are exceedingly bad for the health. Active, changing emotions, a variety of sensations, if not carried to the extreme of dissipation, are very beneficial. There is a refreshment of all the faculties and parts obtained from diversion, change of scene, environment and habits, which can be gotten in no other way.

A monotonous life predisposes to degeneration. Mental rest is lost, and with it that quickening power which mind alone can lend to all our concerns. A rational degree of excitement, novelty, expectancy, etc., is essential to the proper circulation of the blood and of nervous energy. Taste, appetite, relish, are gradually impaired by a dull evenness of life. Indifference and heaviness take the place of enthusiasm and energetic performance. We gradually sink, like clouds, back into the earth for which we have developed an overpowering affinity.

The craving for excitement is so natural that we find people denied by circumstances, healthful recreations and amusements, the occasional needed vacation, picking quarrels, magnifying trifles, resorting to vices, to create some new interest. Follies innumerable, pet weaknesses, etc., are fostered and cherished as means of creating disturbances, and so ventilating the stagnant mental atmosphere.

The physician should bear all this in mind in treating chronic invalids, and insist upon some radical, if temporary, change in their mode of life and surroundings. There will be a struggle, because people become tenacious of a set way of life as their energies decline. They are unwilling to make an effort to regain normal vitality. They will not, if they can help it, give up the little comforts which are really injuring them by decreasing the necessity for effort.

The first steps back to health on the part of invalids are necessarily discomfort, weariness, pain, sensations which are exchanged for buoyancy and exhilaration as strength builds up and courage increases.

Route out your chronic invalids. Insist on their going where they will be compelled to put forth a certain amount of effort, and experience certain new feelings and sensations. By stopping short of fatigue each day, they will derive nothing but benefit from the experiment. They will assure you, of course, that it will kill them; that they are too weak to do anything or go anywhere; but none of us know what we can do, or stand, until the emergency arises, and there is a wonderful and plausible stimulus about this same emergency. People are often astonished at their own powers when the necessity is laid on them to use these powers to a purpose. A series of small shocks is a mighty good thing for people who have become morbidly self-centered.

REACTION AGAINST BACTERIOLOGY.

We quote from the *Medical Brief*.—At the Annual Meeting of the British Medical Association, Dr. GEORGE WILSON, an eminent and able English physician, delivered a powerful arraignment of bacteriology and serum therapeutics.

He pointed out the failure of bacteriology to do anything practical in the way of diminishing or ameliorating disease. PASTEUR's treatment for hydrophobia is the merest charlatanism. KOCH's tuberculin cure never had more than a temporary vogue among irrational enthusiasts. Even much-talked-of antitoxin is no longer seriously regarded, except by those who have some axe to grind in pushing it. As for tetanus serum, pneumococci, puerperal and yellow fever serums, they were such unmitigated failures that few had courage to advocate their cause.

Bacteriology contains the fatal flaw of ecclesiastical science. It is based upon assertion, bolstered up by authority. It is defended and upheld by partisans, who make up their minds about its claims first and investigate afterwards; but, like all half-truths, it has come to judgment at the hands of impartial observers.

Seeing to what extremes, and into what errors, a rash belief in bacteriology was likely to carry the profession, a number of well-balanced, unbiased minds have set themselves to see what there really is in the so-called science.

These latter-day investigators have disposed in short order of bacteriology's claim to be considered the cause of disease. Where a specific germ was claimed to cause a specific lesion, independent investigators, working separately, have demonstrated over and over the presence of other germs at times, and the absence of the specific germ, in diseases clinically identical, at others. It is becoming more and more clear that what was laid down as a law in bacterial pathology was simply a hasty generalisation from a few instances by men in whom judgment is at the mercy of an ardent temperament.

Bacteriology will slowly, but surely and steadily, become generally discredited; and of a necessity serum therapeutics must go with it. Reaction is well under way. The pendulum will swing back. We shall review our work during the past half century, compare it with that of our fathers, try to cull the best from both, and reorganise our practice in the light of common-sense and experience. There is nothing like a foolish departure for stimulating common-sense and bringing out all the prudence and conservatism in the background.

MILITARY HOSPITAL ASSISTANTS' UNIFORM.

THE last issue of Army orders, published at Simla, lays down the following important regulations regarding a new uniform to be worn by senior Hospital Assistants.

Tunic.—Dark blue cloth, scarlet edging all round and up the skirt pleats; collar of black velvet edged with half-inch gold lace round top and bottom. Eight buttons down the front, one on each shoulder, and two at the waist behind. Shoulder-straps of black velvet rounded at top and edged with half-inch gold lace, except at the base; pointed cuffs of black velvet, five inches high at the point and 2½ inches behind, trimmed with half-inch gold lace. Waist hooks right and left to support the sword-belt. Badges of rank (two stars for first class and one star for second class) in gold embroidery on shoulder-straps.

Hospital Assistants of the 1st, 2nd, and 3rd classes are also to have a new patrol jacket, which is thus described:—

Black lining cloth, fastened with hooks and eyes down the front and edged with inch black Mohair braid all round, including the collar and up the openings of the sides. Shoulder-strap of blue cloth edged with half-inch black Mohair braid except at the knee. Pockets in front edged with inch Mohair braid, pocket inside left breast. An Austrian knot of black cord nine inches high on the cuffs.

But these reforms, however necessary, are thrown into insignificance by a drastic military order, No. 1862-D., laying down revised regulations regarding the wearing of white linen collars by officers. In future, only one-eighth of an inch of white collar is to be shown by officers wearing (a) mess dress with low waistcoats, (b) mess jacket fitted with roll collar, (c) old pattern frock-coat with roll collar. The eighth of an inch is apparently optional with regard to white or khaki frocks, except that all officers of corps or staff officers of a district are to be dressed alike.

NOT UNDERSTOOD.

Not understood. We move along asunder,
Our paths grow wider as the seasons creep
Along the years; we marvel and we wonder
Why life is life? And then we fall asleep,
Not understood.

Not understood. We gather false impressions,
And hug them closer as the years go by,
Till virtues often seem to us transgressions;
And thus men rise and fall, and live and die,
Not understood.

Not understood. Poor souls with stunted vision
Oft measure giants by their narrow gauge;
The poisoned shafts of falsehood and derision
Are oft impelled 'gainst those who mould the age,
Not understood.

Not understood. How trifles often change us!
The thoughtless sentence or the fancied slight
Destroy long years of friendship and estrange us.
And on our souls there falls a freezing blight;
Not understood.

Not understood. How many hearts are aching
For lack of sympathy! Ah! day by day,
How many cheerless, lonely hearts are breaking!
How many noble spirits pass away,
Not understood.

Oh, God! that men should see a little clearer;
Or judge less harshly where they cannot see!
Oh, God! that men would draw a little nearer
To one another! They'd be nearer Thee,
And understood.

THOMAS BRAKEN.

EDEN SANITARIUM.

THE new Surgical Ward of the Eden Sanitarium was opened on Thursday, 9th May, by the Lieutenant-Governor in the presence of a large and distinguished gathering of people. After a special service of prayer by the Chaplain of Darjeeling, the Civil Surgeon, on behalf of the Managing Committee, read the report of the conditions under which the new hospital had been built.

Sir JOHN WOODBURN replied in a few words emphasising the necessity there was for such an institution, and then proceeded, at the invitation of the Managing Committee, to unlock the doors of the ward, and declare the building open.

DR. B. SEN, ASSISTANT HEALTH OFFICER, CALCUTTA CORPORATION.

The *Hindu Patriot* bears, on good authority, that it is proposed to dispense with the services of Dr. B. Sen, the Assistant Health Officer of the Calcutta Corporation, owing, apparently, to their being no longer required. Our contemporary does not approve of this decision, and suggests that it would be advantageous and beneficial to the town if the post of Chief Conservancy Superintendent, now occupied by a non-professional man, were held by a medical officer. In short, it is suggested that the post of Chief Conservancy Superintendent should be abolished, and the conservancy arrangements of the town placed under Dr. Sen.

SHORT ITEMS AND PERSONALITIES.

Dr. Abraham Jacobi, of New York, who took his Doctor's degree at Bonn in 1851, celebrated the jubilee of his graduation on April 5th, when he received and entertained his professional friends at the New York Academy of Medicine. Dr. Jacobi read a paper on German Text-books Half a Century Ago: History and Reminiscences.

Lieutenant-Colonel Ranking, I. M. S., who met with an unfortunate accident at cricket last season, by which he lost an eye, leaves by the mail from Bombay on six months' leave. Lieutenant-Colonel Quentin, from Bombay, will act as Secretary to the Board of Examiners during Colonel Ranking's absence.

Lieutenant-Colonels D. Bean and H. C. Banerji, and Captain C. A. Lane, I. M. S., to Bengal; Lieutenant-Colonel O. C. Vaid, Majors R. I. Marks, and I. Garvie, and Captain Birdwood, I. M. S., to the N.W.P.; and Major K. Prasad, I. M. S., to Burma.

Messrs. Bertie Smith and Co. (Limited), of Bombay, desire to make it known that they are in no way connected with the firm of B. Smyth & Co. (Limited), of Bombay, Calcutta, and Glasgow, wine and spirit merchants, who failed recently.

Major Ronald Ross, I. M. S., the malaria specialist, has been elected to be a F. R. C. S. of England under the 20 years' rule of membership and for his researches in malaria.

We learn that Drs. Christopher and Stephens are shortly expected to arrive in India from home to make enquiries and investigations into the causes of malarial fever.

Captain H. A. L. Howell, B. A. M. C., has been awarded the Parkes Memorial Prize for his essay on certain diseases in British and native armies.

Colonel W. F. Burnett, B. A. M. C., is appointed Principal Medical Officer, Meerut and Bundelkhand districts, *vice* Colonel Churchhill, retired.

Mr. T. A. Mendes and Mr. W. B. Henry, of Calcutta, have passed the second examination for the L. R. C. P. and S., Edin.

Colonel George Fleming, F.R.C.V.S., who for some years was at the head of the army veterinary department, is dead.

Mr. D. C. McCabe Dallas, of Assam, has passed the first examination for the L. R. C. P. and S., Edin.

Major J. R. Adie and Captain P. C. Mors, I. M. S., are posted to the Punjab.

Major Aldridge, B. A. M. C., Peshawar, is appointed Sanitary Officer, Bengal Command.

Current Medical Literature.

MEDICINE.

Coma of Diabetes.

PROFESSOR JACOBO (*Medical Press*) distinguishes three clinical forms of coma in diabetes:

1. The gastro-intestinal form, by far the most frequent. It sets in by inappetence, slow digestion, and obstinate constipation. To these initial manifestations are added, in a short time, pain in the right hypochondriac, nausea, vomiting, prolonged respiration, acceleration and weakness of the pulse, and all that without limit; on the contrary, at an advanced period at least, there is generally hypothermia. The urine and the breath of the patient give off an odour of acetone—that is to say, an odour *perfractus*. In a short time nervous agitation sets in; the patient becomes apathetic, comatose, while the temperature goes below the normal. The comatose gives place to coma, and the patient succumbs in three or four days.

2. Vertigo form, less frequent. It sets in by headache and vertigo; the patient must not maintain the upright position for any length of time. Coma appears in a few hours, and death takes place with great rapidity.

3. Cardiac form; exceptional. By its character it resembles cardiac paralysis. It is generally provoked by a forced muscular or some extraordinary effort. At first the patient experiences a sensation of great prostration, the pulse becomes weak and irregular, and the extremities cold. Cyanosis follows, and at the end of a few hours the patient dies.

The cause of diabetic coma is admitted by all to be an auto-intoxication due to an excess of acids in the blood, that of oxybutyric acid in particular.

The prophylactic treatment is naturally essentially alkaline—bicarbonates of soda in large quantities by the mouth (one ounce daily) and a substantial régime. The attendant, when he finds himself in the presence of a diabetic patient suffering from inappetence, dyspepsia, and prostration should be reminded that an attack of coma is imminent, and should examine the urine for acetone.

Nasal Crises in Locomotor Ataxy.

KLIPPEL first called attention to the occasional development of paroxysmal affections of taste and smell in locomotor ataxy (*Archives de Neurologie*). These begin suddenly, continue for a few minutes, and then disappear for hours, days or months. Nasal crises were first observed by him in a man aged 42, who had locomotor ataxy over two years. There were abolition of nasal reflex, diminution of sensibility, and loss of smell. The crises consisted of an attack of sneezing, preceded by disagreeable sensations in the nose, neck, and face. Immediately before the onset of sneezing there was a sense of constriction, numbness, and stiffness in the left side of the face. At that time the cheek was impossible to touch. The left nostril seemed obstructed, and there were tingling sensations over the larynx. Tickling sensations in the left nasal mucous membrane immediately followed, and then the patient sneezed six or seven times. There was a little nasal discharge.

The writer describes the following case in which there was no mark referred to the face and skin over the larynx, as in the preceding instance. A man, aged 49, developed tingling pates in 1891. Other symptoms of locomotor ataxy

rapidly developed. In 1893 there was complete loss of smell, and since then there were crises which were frequent and somewhat prolonged. When there was abolition of pricking and tickling in the nasal tissue, which lasted about three minutes. The patient then sneezed 20 times or more during the next 15 minutes. No pervasion of the nasal mucus or nasal discharge occurred. For some years there had been complete loss of taste, though a little taste in the tongue was occasionally perceived, especially at night. The bitter taste roused the patient, and was accompanied by intense salivation. This condition lasted for about an hour. There were considerable emaciations and anæmia, which involved both cheeks, and were most marked on the side of the nose. The tongue appeared normal, but the pharyngeal reflex was lost, although there was not much difficulty in deglutition. Vision and hearing were unimpaired.—*H. JULIAN*.

Toxic Dyscrasia of Diabetes.

LEPINE discusses the toxic symptoms of diabetes. A diabetic urine contains not only acetone and diacetic acid, but also, especially when toxic symptoms are present, oxybutyric acid, and an increased proportion of ammonia. Acetone and diacetic acid are not strong enough poisons to account for the symptoms; oxybutyric acid has no marked toxicity when given in large quantities to a dog whose pancreas has been removed; so that a slow acid infiltration of the tissues has lately been regarded as the cause of the toxic phenomena. This, however, does not explain certain symptoms which precede the origin of coma—for example, acceleration of pulse and dyspnoea. Moreover, the inefficacy of alkaline medication points to an additional causative factor. Now amido-butyric acid, given experimentally to a dog or cat, causes acceleration of pulse, increased amplitude of respiration, and coma. This acid has not been found in the urine or organs, but may still be an intermediate product during the formation of oxybutyric acid from proteid matter—an origin which is probable in addition to that from fat. Amido-butyric acid on hydration gives rise to oxybutyric acid and ammonia, and is itself an hydration product of nitrile amido-butyrate, which is practically innocuous. Such reactions would account for the increase of ammonia in the urine at the onset of toxic symptoms, and indicate a rational line of treatment. If the foregoing explanation be true, it may well be possible, by means of a phenol, to carbonylate the poison in the tissues, and so produce a harmless nitrile body in its stead. Treatment by phenols has not so far been very successful, but is worth trial. In the absence of further investigation, however, LEPINE advises reliance upon the recognised measures: (1) Alkaline medication; (2) the intravenous injection of saline; (3) inhalation of oxygen.—*Brit. Med. Jour.*

Earliest Symptoms of Multiple Neuritis.

POPOFF states that the general belief that paresthesias and pareses are the earliest symptoms in patients suffering from multiple neuritis is only partially correct. It is now possible by the use of electrical methods to detect even earlier changes in muscles and nerves. Thus in alcoholic patients, before the onset of polyneuritis, it is possible in some cases to show that the interosseal muscles of the hand do not contract to faradic stimulation, while the response to galvanic stimulation is diminished. In an elderly alcoholic patient, aged 68, and the subject of an old left-sided hemiplegia, there were present ataxia in the legs, pain in the calves, and ROMBERG'S symptoms. Electrical testing showed a diminished reaction to faradic stimulation in the left foot (muscles of the toes) and left hand (fingers). These indicated a commencing peripheral neuritis, which subsequently grew more pronounced. In another patient, a man, aged 40 years, and a sufferer from lead poisoning, there was hemiparesis and loss of cutaneous tactile sensibility on left side. The thenar muscles of the right hand and thenar interosseal muscles of the left hand reacted feebly to the electric (faradic) current, and at a later stage distinct symptoms of polyneuritis appeared. The absence of response to faradic stimulation and the diminution of response to the galvanic in the peripheral muscles are thus valuable diagnostic signs as the earliest indications of polyneuritis.—*Brit. Med. Jour.*

SURGERY.

Generalized Inflammation of the Seminal Vesicles.

The frequency of this complication seems, according to the statistics of several observers, to be variable. Two types are described by COLLAN, superficial and deep, of which the latter is often suppurative. Both processes end in atrophy and atrophy of the gland. There is no symptom quite pathognomonic. The only means which appears to warrant the diagnosis of inflammation of the seminal vesicles is the microscopic examination of the contents.

COLLAN has done this in a series of cases of chronic urethritis in order to determine how far the vesicles participated. The patients had for a long time previously been under treatment by various methods for posterior urethritis, and the gonococcus could not be found in the anterior urethra. On the day of examination the patient was asked to retain as much urine as possible. Before the examination the patient urinated so as to sweep out all the products of the urethral secretion, and if the first drops of urine were clear, the urethra was considered to be thoroughly cleansed. Massage was then practised by means of a rectal bougie. Of 15 cases examined, he found the gonococcus nine times in the seminal fluid, and in only one of these had there been epididymitis. The gonococcus may therefore be present in the seminal vesicles independent of an epididymitis, and the existence of the specific microbe and of pus in the contents of the vesicles is of the highest importance in the etiology of uterine affections and in the question of marriage. In the acute suppurative variety, prognosis ought to be guarded, because of the possible extension and complications. Simple catarrhal inflammation is not dangerous, but its duration is sometimes long, and according to the intensity of the process the seminal vesicle may or may not perform its function. Generally the affection is unilateral, and does not result in any great inconvenience as regards the sexual function. Treatment is difficult; in the acute suppurative variety, small pieces of ice, or an apparatus through which cold water is made to circulate, may be introduced into the rectum. As soon as the existence of pus is suspected, it ought to be evacuated. VILLENEUVE follows the vas deferens as a guide to the seminal vesicles, but it is not easily found. After the acute stage has passed, absorption should be hastened by means of iodised suppositories, or by the hot rectal douches. At the onset of the catarrhal variety, antiphlogistic treatment is employed, and after the inflammatory phenomena are subdued, massage of the prostate gives the best results.

This method of expression of the vesicles, at first employed in 1891 by ALEXANDER as a means of diagnosis, was recommended later by FULLER as a therapeutic measure. ALLEN says the best way of emptying the vesicles is to make not several, but one continuous pressure on a single point. According to COLLAN, massage is the most rational method of treatment. By it the vesicles may be completely emptied of pathological products such as the gonococcus. The bladder ought to be about half full while massage is being performed, which, needless to say, should be done with the utmost gentleness, and may be profitably followed by an astringent or antiseptic uraethro-vesical lavage.—*Gac. Hebdom. de Méd. et de Chirurgie.*

Preservation of the Teeth of School Children.

The National Education Office of Ireland has issued an order for the circulation of the following set of rules in the

national schools in Ireland. It would be well if a similar course were adopted in England:—

Preservation of the Teeth in School Children.

Rules recommended by the School Children's Committee of the British Dental Association, and circulated for the information of Managers and Teachers of National Schools in Ireland:—

Without good teeth there cannot be good mastication.

Without thorough mastication there cannot be perfect digestion, and poor health results.

Hence the paramount importance of sound teeth.

Clear teeth do not decay.

The importance of a sound first set of teeth is as great to the child as a second second set is to the adult.

Children should be taught to use the tooth brush.

Food left on the teeth ferments, and the acid formed produces decay.

Decay leads in time to pain and the total destruction of the teeth.

The substance of the following rules should therefore be impressed upon all children:—

1. The teeth should be cleaned at least once daily.

2. The best time to clean the teeth is after the last meal.

3. A small tooth-brush with stiff bristles should be used, brushing up, and down, and across; and inside, and outside, and in between the teeth.

4. A simple tooth-powder, or a little soap and precipitated chalk taken up on the brush may be used if the teeth are dirty or stained.

5. It is a good practice to rinse the mouth out after every meal.

6. All rough usage of the teeth, such as cracking nuts, biting thread, etc., should be avoided, but the proper use of the teeth in chewing is good for them.

When decay occurs, it should be attended to long before any pain results.

It is stopping of a small cavity that is of the greatest service.

In 10,000 children's mouths examined, 86 in every 100 required skilled treatment.

Surgery of the Stomach.

SURGERY of the stomach is reviewed by CARLESS (*The Practitioner*). He calls attention to the many operations now performed on the stomach, and says gastrostomy is indicated only in carcinoma of that organ. This operation has now been performed about 15 times, with five deaths so far. Attention is called to the fact that the vagus nerves are severed in gastrostomy, which leads to accelerated action of the heart, and death from cardiac exhaustion has been reported. Gastroenterostomy is performed in many cases in which formerly it was not attempted. It is indicated in the following conditions: (1) in cases of gastric ulcer which have not yielded to the ordinary treatment; (2) in hæmorrhage from gastric ulcer, which occurs either as an acute or chronic complication; (3) in pyloric stenosis due to gastric ulcer; (4) in pyloric cancer; (5) in atonic dilatation of the stomach; (6) in hyperchlorhydria with eruptions and heartburn. Using the posterior rather than the anterior wall of the stomach in performing this operation is a great improvement. Gastroplasty may do much to remedy a chronic dilatation of the stomach. It consists in doubling the organ over itself and throwing it into a large horizontal fold. Gastrostomy is now frequently performed for any condition which leads to atresia of the œsophagus. It should be done under a local anæsthetic, as a septic pneumonia is apt to follow a general anæsthetic, septic material being regurgitated from the stenosed œsophagus. Gastric troubles should be carefully studied. If this were done, greater success would attend the physician's efforts, and more cases of carcinoma of the stomach would come to the surgeon in time to be cured.

OBSTETRICS AND GYNECOLOGY.

Saline Infusion in Puerperal Eclampsia.

DR. ERNEST W. HEY GROVES read a paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion, with two cases:—

Case I.—Primipara, aged 23. Easy labour in the absence of medical attendance. Eclamptic convulsions and coma immediately after, which increased in severity for twelve hours in spite of morphine and pilocarpin. Endovenous injection of 100 ounces of hot normal saline was followed by rapid improvement. Coma and convulsions lessened at once, and fits ceased within three and a-half hours. Coma passed off and diuresis occurred in thirteen hours.

Case II.—Secundipara, aged 21. Convulsions and coma, with anuria, ushered in labour at full term. The fits were of extreme violence and numbered about twenty-six between 2 A.M. and 4 P.M., when 70 ounces of hot normal saline were injected into a vein. The child was born at 5-30 and died almost at once. The frequency and violence of the fits lessened after transfusion, and ceased within fourteen hours, while coma passed off, and diuresis was established within forty-eight hours. The return to consciousness was followed by two days of violent transitory mania, and a week after delivery a relapse of the anuria and delirium threatened as the result of a large meat meal.

DR. GROVES proceeded to tabulate 47 cases of puerperal eclampsia treated by this method by different observers, chiefly PORAK (13) and JARDINE (22); these showed a mortality of 12·7 per cent. A summary of the principal facts relating to the pathology and morbid anatomy of eclampsia was given, proving the toxic nature of the disease, and showing the essential lesion to consist of minute capillary thrombi with hemorrhagic infarctions surrounded by tissue necrosis. This lesion was shown to be of the same character in the brain, the liver, and the kidneys, and to occur also in the lungs, spleen, and other organs. The greatly increased coagulability of the blood was related to this lesion. The origin of the toxins was considered to be threefold: (1) From the placenta; (2) from the faeces; (3) from the alimentary canal. The pre-eclamptic stage of the disease was caused by the presence of the toxins in the blood. The actual convulsions and coma resulted when these toxins caused the coagulation of the blood and the multiple capillary thrombi. The author concluded by suggesting that the therapeutic action of the saline solutions depended upon its hindering the formation of the capillary thrombi and dissolving those just formed. He pointed out that it could not act primarily as a diuretic, because diuresis occurred after the convulsions had ceased. He also referred to cases in which gelatine injections had caused symptoms of anuria and uræmia accompanied by multiple thrombosis, arguing the possibility of these conditions arising from a morbidly increased coagulability of the blood.—*Brit. Med. Jour.*

Post-Operative Intestinal Obstruction.

In this article the form of obstruction following abdominal section and indirectly due to it is referred to, not the adynamic type due to intestinal paralysis from peritonitis, nor that due to oedema, but to that caused by the plastic lymph given out from the peritoneum and favored by handling and by operative lesions of the bowels. The Trendelenburg posture, CLEVELAND claims, has an incalculably favourable influence in preventing this possibility. He thinks

that, before beginning to examine the pelvic contents after opening the abdomen, it is ~~wis~~ to place the patient in the Trendelenburg posture and carefully cover the incisions with omentum when it is sufficiently developed, and with wet pads of gauze force them as much as possible into the upper abdominal cavity. It is necessary, as far as possible, to leave no raw surfaces, and to cover or obliterate every stump or practice of raw tissue. The use of deodorant salt solution to irrigate the abdominal cavity, and leaving the cavity half filled on closing the incision, is also commended, as the absorption stimulates the patient, lessens shock, and may lessen also the amount of plastic lymph thrown out. The principal point, however, made by the author is the use of oxygen injections, and several cases are reported in which they were employed to advantage. CLEVELAND says he has been so much impressed with the efficiency of the insufflation of oxygen in every case where he has used it, that he intends to always employ it hereafter after abdominal section whenever any obstructive symptoms begin to manifest themselves. It is easily obtainable, and its use is not attended with danger if ordinary care is observed. It not merely has the power to straighten out the intestines and open their lumen, but serves as a stimulant to the peristalsis. Four of the cases detailed were desperate, and in the last he is convinced that life was saved by this procedure. He also suggests that the gas may be absorbed to some degree and enter the general circulation in some form, possibly not as oxygen, and serve as a stimulant and tonic.—*Jour. Amer. Med. Assoc.*

Prolapse of the Female Genital Organs.

DUPLAY speaks of cystocele, rectocele, and prolapse of the uterus. The latter presents three degrees: (1) The uterus has fallen a little into the vagina. (2) The cervix has reached the vulva. (3) The entire uterus has passed outside the vulva. There are acute and chronic cases, the former being very rare. If the uterus is completely prolapsed and irreducible, vaginal hysterectomy is indicated. In certain cases in uterine prolapse alone, recourse may be had to shortening the round ligaments or to hysteropexy. Even in those cases in which vaginal hysterectomy, either total or partial, or ALEXANDER'S operation would appear to be indicated, the cure could be completed by elytrorrhaphy and perineorrhaphy.—*La Bulletin Médical.*

Laceration of Perineum (Non-puerperal) in Young Girls.

BOVEE has prepared a valuable monograph on complete traumatic laceration of the perineum in young girls. ZWEIFEL has noted that the accident usually results from blows of the external genital organs against hard, sharp objects. BOVEE's case was in a girl, aged nine, from a bicycle accident. She was standing upright on the bicycle when her hat blew off and she turned to catch it, which caused her feet to slip so that she fell astride. The wire lamp bracket caught in the rectum and vagina, and held the girl suspended till she was extricated. BOVEE detected a complete laceration of the perineum, extending up the retrovaginal septum for more than an inch. Faecal matter was to be seen passing out of the enlarged opening. The parts were washed with hot boracic lotion for several days, as the labia were contused. The rectal mucous membrane was first brought together with catgut after careful denudation of the whole granulating surface. The anal sphincter was then sutured with catgut, and the remainder of the wound closed with tree-silk-worm gut, figure of eight, sutures so introduced as to completely close the remainder of the wound when tied. The bowels were moved daily, and the sutures removed on the tenth day. The union was complete, and the patient was discharged four days later. BOVEE relates some other cases previously recorded: In one a goat baited at the patient and its horn tore her perineum; in a second, the patient fell on a bay knife. Pitchforks, a stove of a barrel, and crockery have caused laceration of the perineum.—*Brit. Med. Jour.*

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Sensitiveness of the Peritoneum.

Professor K. G. LARSEN draws the conclusion from his researches that the parietal peritoneum is richly endowed with nerves of sensation. The stomach, intestines and mesentery, however, are insensible to pain or to touch, and patients are unable to distinguish between heat and cold applied to these organs. The gall-bladder, liver, and kidneys are equally lacking in sensitiveness. The author explains intestinal colic as due to the pressure upon the parietal peritoneum of rapidly distended gut. LARSEN has operated upon inguinal and femoral herniae and a Meckel's diverticulum under local anesthesia, using SCHLEICH's solution No. 2, and infiltrating each layer as it is approached. He believes that the anesthesia of the future for abdominal operations will be a combination of general narcosis and local anesthesia.—*New York Med. Rec.*

Urinary Pigments.

Some of the substances classified as urinary pigments are merely colored products formed by the action of reagents upon constituents of urine that are themselves colorless. Among these are urochrome and the indigo pigments. Of the true urinary pigments some are excreted either wholly or in part, as colorless or faintly colored parent substances known as "chromogens," that quickly become converted into their colored derivatives when the urine is exposed to light and air. Colored substance may enter the alimentary canal in articles of food, in sweetmeats, or in medicines, and may be thence absorbed and excreted, either altered or unaltered, by the kidneys. Certain pigments are normal constituents of the body, but only find their way into the urine under morbid conditions, such as hemoglobin, bilirubin, biliverdin and melanin. There is a group of coloring matters that may claim to be urinary pigments in a mere special sense, seeing that they may all be present, if only in traces, in the urine of persons who may fairly be considered to be in normal health. Urochrome, urobilin, hematoporphyrin, and uroerythrin belong to this class. Urochrome is the most abundant of the urinary pigments, and to it the familiar yellow color of normal urine is probably entirely due. Urobilin only occurs in very small amount in normal urine, and usually in the form of chromogens. Hematoporphyrin is present in mere traces in normal urine and often in increased quantity in disease. Uroerythrin may appear in small amounts as the result of very trifling deviations from perfect health. In morbid urines it is often abundantly present, and it is chiefly conspicuous as the coloring matter of pink urate sediments. The chief seat of the formation of urobilin is undoubtedly the intestinal canal. Increased excretion of the pigment, evidenced by a dark absorption-band seen when the urine is examined with the spectroscope, is a very common phenomenon in disease, and we may distinguish between cases in which the band is seen for only a few days in succession, and those in which it is present over a long period. A distinction may also be drawn between cases of what may be called "pure urobilinuria" and those in which uroerythrin and hematoporphyrin are also present in excess. In febrile disorders of almost every kind temporary urobilinuria may be met with, the duration of which usually corresponds with that of the pyrexia. In diseases of the liver the urobilinuria is usually persistent, as is well seen in cases of cirrhosis, malignant disease, or passive congestion secondary to cardiac or pulmonary troubles. In diseases attended by excessive hemolysis, and during the absorption of extravasated blood, there is apt to be conspicuous urobilinuria, and unless complications are present there is a corresponding increase of uroerythrin or hematoporphyrin. The occurrence of persistent urobilinuria in per-nicious anemia supplies a diagnostic sign of real value and affords an indication of the progress of the case. In asso-

ciation with it, GARRON has observed a marked excess of urobilin in the feces. When blood-extravasations are being absorbed, a temporary urobilinuria is apt to occur in a day or two after the occurrence of the hemorrhage, and this again may prove of service in the diagnosis of deep-seated hemorrhage, such as pelvic hematomas. Diminished excretion or absence of urobilin from the urine may be due to diminished formation of bile-pigment, as in chlorosis, phosphorus poisoning, or acute yellow atrophy of the liver; to suspension of urobilin formation in the intestine as in typhoid fever with green stools; as well as to occlusion of the common bile-duct. VIGLIANO suggested that renal permeability has an important influence upon the excretion of this pigment, and it is a clinical fact that albuminuria and urobilinuria very seldom co-exist. There is, moreover, experimental evidence in support of this view. In normal human urine, hematoporphyrin is present in minimal quantities, as can readily be demonstrated by appropriate methods. In many morbid urines it is found in larger but still small amounts and under exceptional circumstances, and especially as a result of the administration of sulfonal, it is much more abundantly present in urines which have a deep port-wine tint. However, such urines owe but little of their peculiar color to this pigment. It is also present in the feces, and it may be extracted from meconium. In a case of sulfonal-poisoning, A. E. TAYLOR and J. SAILER have recently recovered it from blood collected *post-mortem*. Hematoporphyrin has at least four characteristic groupings of absorption-bands for its identification under different conditions. The amount present in urine is usually so small that the bands are quite invisible on direct spectroscopic examination, or are so faint that they can only be recognised by a trained eye. GARRON believes that we are justified in concluding that the hematoporphyrin of the body has hemoglobin for its parent substance, and is isomeric with bilirubin. Seeing, then, that at least the greater part of the hematoporphyrin of the body is derived from human sources, it is a natural supposition that its excretion in excess is an indication of increased hemolysis. Experiments seem to show, however, that there is no necessary connection between excess of hematoporphyrin in the urine and excessive hemolysis.—*Phil. Med. Jour.*

Diphtheria Bacilli in Healthy Throats.

FROM a study of the throat cultures of 285 healthy individuals, seven of which showed the presence of diphtheria bacilli, and of 190 healthy boys whose throat cultures showed the presence of the KLEBS LOEFFLER bacilli in only 16, FRANÇOIS P. DENNY (*Boston Med. and Surg. Jour.*) has drawn the following conclusions:—(1) Diphtheria bacilli are seldom found in the throats of those who have not been exposed to diphtheria. (2) The bacilli are more frequently found in those who have been exposed, especially in persons living under poor hygienic conditions or in institutions. (3) The conditions of institution life which favor the growth of the bacilli in healthy throats are the living together of a large number of persons in a limited air space. (4) Healthy individuals with virulent bacilli in their throats can spread the disease. They are just as dangerous as mild or convalescent cases of diphtheria, and ought, therefore, to be detected and isolated. (5) Cultures ought to be made among those who have been exposed to diphtheria: (a) By physicians among the members of a family who have been exposed; (b) by inspectors in the schools; (c) by the health officers under any circumstances when they think the disease is being or may be spread by such individuals.—*Med. News.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Prevention of Insanity.

HENRY WALDO COE states that not less than fifty per cent. of the insane should never have been born, and that for this mistake physicians are to a certain extent responsible. The author sees no serious objection to the marriage of a woman who has recovered from insanity, if the dangers of the proterperum are eliminated and the prospects of progeny done away with through the removal of the ovaries, the future husband being informed of the true state of affairs. It is a rule to be invariably advocated that, when insanity is in a family, intermarriage should not be contracted. After marriage has taken place, the advice that no children shall be born is good, but not always effective. During pregnancy and lactation, the mother must be treated with the greatest gentleness. Sleep is the greatest foe which insanity has, as syphilis and heredity are its greatest friends. The administration of drugs should be most careful. The food for the growing child of neurotic parent should be carefully selected and prepared. Masturbation in a boy should be guarded against. The schooling of the child should be carefully planned. In all things the child should have his life shaped, so that he is to be a man in the middle of the marching column—neither at the head nor at the foot. As a business man, he should enjoy an out-of-door life as much as possible. The surgical defects of patients who have possibilities for mental trouble should have the careful attention of our surgeons. Syphilis must be treated. All epilepsies demand closest attention. Hysteria and neurasthenia and kindred states must not be overlooked. Alcoholism and the gambling habit must be avoided.—*Med. News*.

Duration of Life.

THE question is often raised whether the great advances in the arts and sciences have, after all, contributed to the prolongation of life. Such evidence as is accessible would seem to point in the affirmative. Thus, in England and Wales, during the period of 1841 to 1880, the death-rate among males of all ages was 28, and among females 21.6 per 1,000, while during the years from 1886 to 1889 the death-rate was 20 per 1,000 for males and 17.8 for females. It therefore appears that within fifty years there has been a clear gain of more than three lives in every thousand. The birth-rate in England has, however, declined during the corresponding period, having been in 1842 32.6 per million of population, while from 1886 to 1890 it was 31.4.—*Jour. Amer. Med. Assoc.*

Injurious Effects of Excessive Spitting.

FIVE cases are described of what GELLAT terms "psychic salivation," which he considers is quite frequent. In a typical case a middle-aged woman applied for relief from an excessive secretion of mucous in the nasopharynx which prevented her from sleeping. She became frightened during the local irrigation and resorted to a newspaper "specialist." He treated her for a year. When she applied to GELLAT the secretion of mucous saliva had become excessive, and the patient was spitting or wiping her mouth every minute, with nausea at the idea of swallowing "the horrible stuff." GELLAT told her she must not spit, and ordered 20 drops of hydrochloric acid in a glass of water. Whenever she felt an inclination to spit, she must sip from the glass and swallow instead of expectorating. In three days she was very much better, and was soon completely cured. Her general health, which had been much debilitated, was restored to normal at the same time. The loss of the oxydases in the saliva, which are wasted in the excessive spitting, depresses the metabolism and leads to local and general disturbances and neurasthenia. He therefore suggests that the more correct term for the condition would be "aptyalia," and that the public should be warned of the injury resulting from the perverted use of the saliva.—*Watch, St. Petersburg*.

Tobacco for Persons under Sixteen.

MASON says:—Among the points in the report of a committee appointed to consider this subject in response to the

request of the Government, we note that *smoke tobacco* should always be avoided, as the nicotine escapes from it without being decomposed. As nicotine vaporizes at 250 C., the portion not decomposed by the heat accumulates in the unburned portion toward the mouth, and the last quarter of a cigar should never be smoked. Pipes should have long stems. The cigarette is, of all the methods of smoking, the least harmful. No one should smoke before meals, nor on an empty stomach, nor in a close room. Young people should be effectively warned at home and at school of the dangers of excess and abuse of tobacco. Tobacco should be regarded as possibly dangerous at all ages, and especially during the period of active growth.—*Jour. Amer. Med. Assoc.*

The American Cigarette.

SEYMOUR maintains that the cigarette deserves its bad name, even though it may not be found to contain harmful foreign substances other than tobacco. The toxins of tobacco are developed by combustion and carried directly to the mouth. The material of the cigarette is often refuse tobacco from old cigar stamps, and moistened by the maker's tongue, which may be syphilitic. He concludes that the prepared cigarette is too vile for any defence.—*Jour. Amer. Med. Assoc.*

New Medico-Legal Test for Distinguishing between Human and Animal Blood.

A. WASSERMANN and A. SCHUTZE say:—This procedure is based upon the experiments of BORDET with hamolysin and precipitin. BORDET showed that, after the incorporation of the red blood cells of a species of animal different from that experimented on, there were developed in the blood of the latter substances which combine the red cells (agglutinin) and other substances which decompose them (hamolysin). The test is made in the following manner: Rabbits are injected five or six times with eight to ten cubic centimetres of human blood serum. Six days after the last injection, the animals are bled by opening the carotid, and the blood is allowed to separate, under a very low temperature, into clot and serum. A portion of the suspicious substance to be tested is washed with physiological salt solution, which is filtered until completely clear, and the clear filtrate is divided into two portions which are placed in sterilized vessels. To one vessel is added one-half cubic centimetre of the serum of a rabbit treated with human serum, and to the other a similar quantity of the blood of a rabbit not so treated. In a third vessel, serving also as a control, are placed four or five cubic centimetres of a blood from some other animal, such as a sheep or swine, the solution being made colorless by the removal of the red cells, and to this third vessel is also added one-half centimetre of blood of a rabbit treated with human serum. The three vessels are then placed in a temperature of 37°C. In the course of an hour the vessel which contains the suspicious material, and to which has been added the blood of the rabbit treated with human serum, begins to show a turbidity and a precipitate, while the contents of both the other vessels remain clear and unchanged. The resulting turbidity and precipitate are to be taken as evidence that the suspicious material examined contains human blood, for no other blood except that of the man will give such a reaction. The authors claim that this test is applicable in the case of suspicious material, when it is impossible to obtain for recognition intact red cells, and even when it is no longer possible to extract human crystals.—*New York Med. Rec.*

THERAPEUTICS & PHARMACOLOGY.

Epsom Salts Externally.

We all know the action of salts when taken internally in sufficient doses, but perhaps some are ignorant of the effects of a solution applied locally. Just lately a number of writers recommend the solution applied locally in inflammation of any kind. A cloth wrung out in a saturated solution and applied to a strain or swollen joint of any kind will ease the pain, relieve the swelling and diminish the amount of inflammation. Old ulcers of the leg are greatly benefited by the solution as a moist dressing. Healing is hastened, and the reparative process is greatly stimulated. Boils and carbuncles are also favorably affected by hot compresses dipped in the solution, but just how much depends upon the salts and how much on the moist heat may be in doubt. Skin eruptions of various kinds, especially if attended with much itching and irritation, are successfully treated in the same way.

We all like to use something made in Germany when we treat a patient, and so many of our common but valuable remedies are neglected. The action of salts in inflammation of the intestinal tract is oftentimes magical, as in the early stages of dysentery, and perhaps its action upon the external skin is just as marked in certain conditions. Among the every day remedies we attribute all the good effect to the most marked physiological action; as in the case of salts we think of it only as a saline cathartic, and if it has any good effect, we say it is due to the purgation. In many cases this is the whole truth perhaps, but in others it is only half the truth, and there is some peculiar local action which is only obscured by the more prominent result, and which is very important in the cure. If salts can so quickly restore the normal secretion of a diseased mucosa, may it not have a good effect upon the inflammatory diseases of the skin? There will be no harm in trying it, and we may find a valuable agent for local use in this very common household remedy.

Thymotal: a New Remedy for Ankylostomiasis.

J. E. POOL (*Medical News*) prefers this new remedy thymotal to thymol, for the following reasons: (1) Because it is without odor, and can therefore be taken by children who cannot swallow pills. At the same time the danger of being suffocated by thymol electuary, which occasionally happens in infants, is avoided; (2) because it is not dissolved in the stomach as is thymol, and is not vomited as is often the case with the latter; (3) because thymotal does not cause giddiness, as thymol does very shortly after it is taken; (4) because the danger of thymol poisoning is reduced, especially in those children whose bodies are weakened by ankylostoma; (5) because the carbonate of thymol is broken up in the body by the influence of the bile and the mucous of the intestines, and thymol is formed exactly at the places where the ankylostoma are found in the body, i. e., the duodenum and the adjacent parts of the intestines; (6) because it cures more rapidly than does thymol (as far as can be judged from the treatment of this small number of patients—even). The writer proceeds to give the following directions for the administration of this drug: For adults, 2.0 gm. (gr. xxx.); for children, 1.0 gm. (gr. xv.), and for babes, 0.5 gm. (gr. viiss.) three or four times daily. This treatment must be continued for four days, and a purgative must be taken on the fifth day, after which the whole treatment must be repeated until no more eggs of ankylostoma are found in the stools.

Belladonna in Intestinal Obstruction.

B. MORITZ (*Journal American Medical Association*) says:—For many years he has been proclaiming the advantages to be derived from belladonna in the treatment of intestinal obstruction from any cause, and its superiority to all other medicinal measures. He administers by the mouth a

pill of 1.5 mg. of extract of belladonna every four to six hours until status passes. The first symptoms of transient intoxication appear after six to ten doses; dryness in the throat, agitation, sometimes delirium, but just before this point is reached the intestinal contents are evacuated, with no painful peristalsis nor vomiting. This treatment is applicable to all varieties of intestinal occlusion; can never do harm; sometimes removes the obstruction without further measures; untwists a slight volvulus; almost always relieves and renders the conditions more favorable for operation if this becomes necessary. If fever persists after status passes, operation should not be delayed. He rejects atropin as too dangerous, but six physicians reported last year in the *Muscle Med. Week*, extremely favorable results obtained in severe cases of ileus by the subcutaneous injection of 1 to 5 mg. of atropin. In one case the patient was 80 years of age and recovered after injection of 1 and 3 mg. of atropin. Another patient died; the ileus in this case was consecutive to an operation on the fourth day of strangulated femoral hernia, and the physician is inclined to believe that a second injection might have saved the patient.

Gonorrheal Rheumatism.

PUT to bed only if lower extremities are attacked, says J. R. HAYDEN, immobilize joints, and apply compresses wet in cold lead-and-opium wash. When the acute symptoms subside, apply the PAQUELIN cautery, or rub in compound iodine ointment, and make firm and uniform pressure by a bandage. If then the fluid remains, it may be withdrawn and the joint irrigated with mercuric bichloride, 1:5000. In the chronic stage the joints are massaged and exercised daily, and large doses of potassium iodide administered. The most important thing of all, however, in gonorrheal rheumatism is to cure the urethral lesion.—*Veneral Diseases*.

For Sweet Oyster-Oil.

Ol. cinnamomi	...	...	m℥ij.
Ol. caryophylli	...	...	m℥j.
Saccharini	...	...	gr. ij.
Alcohol. absol.	...	...	3℥j.
Ol. ricini	...	...	3℥viij.

M.

For Urticaria.

R Ethyl alcohol			
Sulphuric ether			
Chloroform	...	...	30 gm.
Menthol	...	...	0.10 cgm.

M. S. Apply as lotion.

—GAUCHER.

Menthol Vinegar.

R Menthol	...	...	3 gm.
Acid. acetic (crystal)	...	...	8 "
Spt. vini rect. (sixty per cent.)	...	...	100 "

M. Dissolve the menthol in the alcohol and add the acid.
S. Half a teaspoonful in a wineglass of tepid water as a mouth-wash or gargle.

For Carious Teeth.

R Menthol	...	...	2 gm.
Camphor	...	...	1 "
Cocaine	...	...	550 "

M. Triturate to liquefaction. S. Introduce into the cavity a pledget of cotton wet with the solution every half-hour till relief.

Correspondence.

THE MADRAS MEDICAL COLLEGE: RETROGRESSIVE CHAIRS: CHANGES IN PROFESSIONAL ARRANGEMENTS PROCLAIMED NECESSARY.

To THE EDITOR, "Indian Medical Record."

Sir,—It may not be generally known that the M.B. and L. M. S. curricula were revised, and the new regulations brought into force in 1898. This was done with the purpose of giving a more practical character to the medical studies in conformity with the recent advances of medical science. This has been more emphasised in the case of M. B. students, in whose final year (fifth), they have no college work except a course of "Operative Surgery," and their entire time is devoted to hospital work, and thus they will ostensibly be taught the practical application of what they have learned in the previous years.

But the number of lecturers in each subject is not specified, this being left to the option of the teacher, the student being certified that he has attended a *course of lectures* instead of a *certain number of lectures* as was the custom hitherto. Whether such certificates would be of any value to those intending to go up even for the L. R. C. P. and S. is doubtful.

The medical examination results are just out, and they are as follow:—

1st	M. B. & C. M.	Examn.	(New Regulns.)	19	passed out of	35
2nd	do.	do.	do.	11	do.	14
3rd	do.	do.	do.	none	do.	6
1st	L. M. & S.	do.	do.	18	do.	18
2nd	do.	do.	do.	none	do.	7
3rd	do.	do.	do.	none	do.	2
2nd	M. B. & C. M. or final do.		(Old Regulns.)	9	do.	15

The results of the Second and Third L. M. S. and the Third M. B. examinations are disastrous, and next year there will be no students in their final M. B. class under the new regulations!

The Second L. M. & S. and Third M. B. examinations comprise Hygiene, Materia Medica, Medical Jurisprudence and Pathology (including Bacteriology), and students have to make up half marks on the whole, getting at the same time one-third in each subject: to pass, therefore, one has to make up half in each subject, which is rather a very high minimum.

There is yet another cause for this unsatisfactory state of affairs, which has been mentioned by the Director of Public Instruction in his review of the College Report for 1892-93, together with the remedy: and the quotation I give below is both interesting and instructive at the present time. The italics are mine:—

"This unsatisfactory state of things must to no small extent be attributed to the numerous changes in the staff year after year. A change in presidency medical charge too frequently leads to a change in the incumbency of one of the Chairs in the Medical College. Moreover, the system of attaching particular chairs or lectureships to particular hospital duties does not always ensure that each subject shall be handled by persons fully qualified to teach it. Further, the present system is little calculated to bind the students closely to the professors, as in the College of Engineering and other colleges. Frequent changes in the staff are also fatal to good discipline. After a careful consideration, the Director is convinced that the college should be offered chiefly to specialists from Europe, engaged under special contracts, who should be required to give clinical instruction in the presidency hospitals. If this is considered impracticable at present, the selection for appointments to the presidency hospitals—and, consequently, for professorships in the Medical College—should be made from among the commissioned officers of the Medical Service, who have satisfied the Surgeon-General and the Director, not only as to their proficiency in a particular subject, but also as to their skill as teachers. These men, when once appointed to the college, should not be disturbed for three or four years at least, unless on extraordinary public grounds."

Yours, &c.,
PROGRESS.

(This decision of the Director-General of Public Instruction entirely supports the views we have set forth from time to time regarding the professorships in our Indian Medical Colleges. The system now adopted in Madras of allowing lecturers to fix the number of their lectures and to provide students with a certificate to the effect that they have attended a course "instead" of a definitely fixed number of lectures, is a serious mistake, as it is sure to prove a barrier to Madras students having such certificates accepted by the medical schools of Great Britain. These schools demand a fixed number of lectures in each course, and it is high time the students objected to these innovations, which are certainly to their present and future detriment.—Ed. I. M. R.)

A FASTING LADY IN BOMBAY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following report from the *Bombay Gazette* will interest your readers:—The medical men of Bombay are exercised over the case of a young Hindu woman who is alleged to have existed for over two years without either food or drink. This, if true, eclipses all other records of fasting, and the alleged marvel is all the greater, in that the individual, far from being a cataleptic, goes about her ordinary household avocations, and her physical appearance is in no way different from that of the average Hindu young lady who is able to take ordinary nourishment. The fasting lady is a young woman of about twenty years of age, by name BAL PREMAI, and she lives with her husband and his relatives off Falkland Road. Her husband is the brother of RAO SAHER MULJI NARAYAN. Dr. A. P. KOTHEK, who is the medical adviser of the family, states that he first came to know of the girl's incredible way of life about six months ago, and since then he has been engaged in drawing the attention of his medical brethren and others to the case. It has not been easy to persuade them to take an interest in the extraordinary occurrence, but it has now been decided to take steps to thoroughly test the matter. Although the girl is alleged to have subsisted without food or drink for two years and a-half, attention was not drawn to the matter until Dr. KOTHEK made it known; because, says the doctor, the relatives tried to conceal the fact from the public as long as possible. They have, however, spent a great deal of money in trying to have the girl cured, for they look upon her absence of appetite or lack of desire to eat as an ailment requiring treatment which, however, has so far been without success. The history of the case is peculiar, and actually dates back to five years ago, when the girl's appetite

began to fail. This was not regarded as in itself serious at the time, but subsequently, when her bodily health appeared to become other than normal, the disinclination for food increased. She was placed under treatment and was sent to Ootacamund, where her father resides. On the voyage thither it was noticed that she took no food, and, in brief, she returned to Bombay without having been benefited by treatment. For two years and a-half, her relatives positively declare, she has taken nothing in the shape of food or drink. The medical aspect of the case is all the more interesting, in that the ordinary natural functions consequent upon digestion are also alleged to have been stopped for the same period. Dr. KOTHEK states that shortly after he became aware of the girl's incredible condition of existence, he gave her a portion of food, which was not only rejected by the stomach, but brought up a quantity of blood. The girl herself was seen yesterday by a representative of this paper. She descended the stairs from an upper room, where, according to the statements of other members of the family, she had been engaged in cooking. In her appearance there is nothing to indicate that she does not take nourishment. She exhibits none of the ordinary signs of starvation, there is no appearance in her face and arms of emaciation, and the only indication that she may not be in robust health is, perhaps, a slightly more languid and quieter demeanour than other female members of the household. She stands before the visitor without any sign of exhaustion and answers questions readily enough. She makes no complaint of illness. She simply states that she can't eat; that she has no appetite. Neither by herself nor by her relatives is any pretence made of supernatural powers. So far as the relatives are concerned, they declare that they will pay one thousand rupees to anybody who will make the girl eat.

As the result of the medical interest that has been evoked in the case, it has been decided that the girl shall be confined for a period in a bungalow away from her relations and attended by nurses day and night with a view of testing the truth of the astounding statements that have been made in reference to the girl's powers. The strictest precautions will be observed to prevent food or drink of any kind being conveyed to her for a certain period. The girl herself is quite willing to submit herself to the test, and her relatives also raise no objection.

Yours, &c.,
L. M. & S., BOMBAY.

BRITISH MEDICAL ASSOCIATION : SIXTY-NINTH ANNUAL MEETING, CHELTENHAM.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—At the forthcoming meeting of the British Medical Association at Cheltenham, July 29th, 31st, August 1st and 2nd, 1901, it is hoped that the work of the Tropical Section will be as important and interesting as it has been at previous meetings, and we trust that you will assist the Executive to realise this hope.

The following subjects have been selected for discussion :—

Wednesday, July 31st.—"Stone in the Tropics." The discussion on this subject will be opened by Mr. P. J. Freyer.

Thursday, August 1st.—"The Prevention of Malaria."

Friday, August 2nd.—"The Maladies of European Children in Hot Climates." The discussion on this subject will be opened by Colonel Crombie.

The Section will meet on each day at 10 o'clock, when the above discussions will be immediately entered upon.

On Wednesday the business will be introduced by a short address from the President, Major Ronald Ross.

Drawings, photographs, card specimens, microscopic preparations, & lantern demonstrations, illustrative of disease, are always instructive and never fail to excite interest. Those concerned in these works of the Tropical Section are requested to help in this direction.

The following gentlemen have already intimated their intention to take part in the discussions :—

Dr. Patrick Manson, Mr. James Cantlie, Major Ross, Col. Crombie, Mr. P. J. Freyer, Dr. M. F. Simon, Dr. Edward Henderson.

Papers have been promised by—

Col. Crombie, Dr. G. H. F. Nottal, Dr. Andrew Duncan, Mr. Johnson Smith, Major Ronald Ross, Major W. J. Buchanan, M.B., I.M.S., Major F. P. Maynard, F.R.C.S., I.M.S., Mr. James Cantlie.

We shall be obliged if you will let us know, at your early convenience, if you will be able to take part in any of the above discussions, or if it is your intention to contribute a paper on any subject within the range of the Tropical Section.

It is obvious that presence in England is necessary for a member to take part in person in the discussions, but we would point out that this is by no means necessary as regards papers either containing observations on the subjects to be discussed, or on other subjects which may be sent to us to be read at the meeting.

We are, Dear Sir,

Your obedient servants,

J. F. JOHNS,
3, Lansdown Place, Cheltenham.
MAX. F. SIMON,
Office of British Medical Association,
420, Strand, W. C.

Hon. Secys.

21st March, 1901.

EXTRACT FROM REGULATIONS FOR THE CONDUCT OF ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

Authors are requested to send short abstracts of their papers not later than Monday, June 24th (written in English or accompanied by a translation), to one of the Secretaries of the Section, so that they may be forwarded by him in time to be set up in type.

A CALCUTTA FRAUD : WARNING TO POLICE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—There was an association at Calcutta, called "The Universal Marriage Provision and Family Relief Fund," situate at No. 17, Hari Mohun Bose's Lane, Muejidbari Street, for which I was a subscriber. The Fund used to send notices every month to meet the subscriptions, but no such notices were received for the last two months, nor is there any sign of the existence of the Fund. This apprehension is increased by the failure to receive any reply for the letters addressed to the Fund. I therefore request you to be pleased to publish the following in one of the issues of your *Record* that you may find convenient to insert.

Will you or any of your readers be pleased to inform me whether "The Universal Marriage Provision and Family Relief Fund, Calcutta," is in existence and in a working order."

Yours, &c.,
M. ITASAWMY PILLAY,
Hospital Assistant,
Local Fund Dispensary.

KAMATI, BELLARY DISTRICT;
11th March 1901.

GOVERNMENT MEDICAL SERVICES

BOMBAY

The following transfers are sanctioned:—

- Hosp. Asst. **Ilmar Auro**, from Dispy. Dames, to Dispy. Borsad.
- Hosp. Asst. **Chittanjal Mahasukham**, from famine duty under the orders of the Sany. Commr. for the Govt. of Bombay, to gen. duty, Bombay.
- Hosp. Asst. **Damodar Pandurang**, from gen. duty, Belgaum, to Civil Hosp. Belgaum.
- Hosp. Asst. **Ramchander Sakharam Purbhoney**, from gen. duty, Bombay, to Dispy. Saundatti.
- Hosp. Asst. **Karappa Khatu**, from Dispy. Saundatti, to Dispy. Chak.
- Hosp. Asst. **Pandurang Narayan**, from Dispy. Mundgod, to Dispy. Bhatkal.
- Hosp. Asst. **Gungar Ramji Chawan**, from famine duty under the orders of the Sany. Commr. to Dispy. Mundgod.
- Hosp. Asst. **Bhogilal Mayasambh**, from famine duty under the orders of the Sany. Commr. to the Govt. of Bombay, to Dispy. Kavi.
- Hosp. Asst. **Gorshanker Liladher**, from gen. duty, Ahmedabad, to Dispy. Anand.
- Hosp. Asst. **Bapu Jadav**, from famine duty, to Dispy. Mahuda.
- Hosp. Asst. **Gungadher Bapu Sathey**, from gen. duty, Bombay, to Dispy. Khed.
- Hosp. Asst. **Sakharam Narayen**, from gen. duty, Roza, Kolaba Collectorate, to Travelling Dispy., Roza.
- Hosp. Asst. **Gafferkhan Bahadurkhan**, from gen. duty, Bombay, to gen. duty, Ahmedabad.
- Hosp. Asst. **Baldevsingh Vijayasingh**, from gen. duty, Ahmedabad, to Civil Hosp., Kaira.
- The undermentioned are granted leave:—
- Tempy. Hosp. Asst. **Asundaram Thadamal**, attached to the N.W. Ry. Locomotive Dispy., Sukkur, privilege leave for one month from the 30th Nov. 1900.
- Hosp. Asst. **Prabhshanker Ramchander**, privilege leave from 27th Sept. to 7th Nov. 1900.
- Hosp. Asst. **Gajanan Krishna**, Dispy. Bahimatpur, privilege leave for three months from the 16th Jan. 1901.
- Hosp. Asst. **Peeraji Jaldar**, Civil Hosp., Belgaum, privilege leave for two months from the 25th Jan. 1901.
- Hosp. Asst. **Mahabir Prasad**, in ch. Dispy. Anand, privilege leave for three months from the 16th Jan. 1901.

PUNJAB

- Asst. Surgn. **Kirpa Ram Kora**, doing gen. duty at the Mayo Hosp., Lahore, reverted to the ch. of the Fazilka Dispy., Ferozepore Dist., on the 29th March 1901, relieving Tempy. Asst. Surgn. **Shiv Das**, who was apptd. to do gen. duty at Ferozepore on the 30th March 1901.
- Hosp. Asst. **Kanak Chand** was apptd. to the Dalhousie Dispy., Gurdaspur Dist., from the 31st March 1901.
- The services of the undermentioned Hosp. Assts. of the Central Provs. Provincial Estab. having been placed at the disposal of the Punjab Govt., they reported themselves to the Civil Surgn., Umballa, for gen. duty on the dates noted against their names:—
- Wohendro Nath Mukherji**,—13th March 1901; **Khired Kumar Ghosh**,—30th March 1901; **Dallava Nand Das**,—24th March 1901; **Shahid Amanat Hussain**,—1st April 1901.
- The services of Hosp. Asst. **Ganga Sahai** of the N.W. P. Provincial Estab. having been placed at the disposal of the Punjab Govt., he reported himself to the Civil Surgn., Umballa, for gen. duty on the 18th March 1901.
- Hosp. Asst. **Munshi Ram Charsada** Dispy., Peshawar Dist., was reduced to the 3rd Class of Hosp. Assts. from the 25th Feb. 1901.
- On being relieved of the tempy. ch. of the Swat River Canal Dispy., Narrai, Peshawar Dist., Hosp. Asst. **Rup Lal** was placed on gen. duty at Peshawar from the 2nd April 1901.
- Hosp. Asst. **Rup Lal**, on gen. duty at Peshawar, was apptd. as a tempy. measure to the Peshawar City Branch Dispy. on the 3rd April 1901, relieving Hosp. Asst. **Chiragh-ud-din**.
- Hosp. Asst. **Chiragh-ud-din** from City Branch Dispy., Peshawar, to the Charsada Dispy. in the same dist., which he joined on the 5th April 1901, relieving Hosp. Asst. **Munshi Ram**.

PERNA

- Hosp. Asst. **Ganga Singh** was on duty in the Shan States from the 27th Dec. 1900.
- Hosp. Asst. **Shah Abdulaziz** relinquished ch. at the Police Hosp., Falam, Chin Hills, on the 17th March 1901, and assumed ch. at the Outpost Hosp., Haka, Chin Hills, on the 31st March 1901.
- Hosp. Asst. **Gope Chand**, on transfer to the Upper Chinwin dist., relinquished ch. at the Outpost Hosp., Haka, Chin Hills, on the 21st March 1901.
- Hosp. Asst. **Gope Chand** made over, and Hosp. Asst. **Shah Abdul Aziz** assumed, ch. of addnl. duties at the Civil Hosp., Haka, Chin Hills, on the 31st March 1901.
- Hosp. Asst. **Ibrahim Hussain** relinquished ch. at the Police Hosp., Falam, Chin Hills, on the 12th March 1901, and assumed ch. at the Gen. Hosp., Mandalay, on the 22nd March 1901 as a supy.
- Hosp. Asst. **Daniel Paul** relinquished ch. at the Police Hosp., Falam, Chin Hills, on the 11th March 1901, and assumed ch. at the Gen. Hosp., Mandalay, on the 22nd March 1901 as a supy.
- Hosp. Asst. **E. G. Visuvanram** relinquished ch. at the Police Hosp., Lashio, Northern Shan States, on the 5th March 1901, and assumed ch. at the Outpost Hosp., Kutkal, Northern Shan States, on the 16th March 1901.
- Hosp. Asst. **Shah Kader Bux** relinquished ch. at the Outpost Hosp. at Kutkal, Northern Shan States, on the 10th March 1901, and assumed ch. of his duties with Capt. Ramny's escort at Vinghal, Northern Shan States, on the 17th March 1901.
- Hosp. Asst. **Shah Kader Bux** made over, and Hosp. Asst. **E. G. Visuvanram** assumed, ch. of addnl. duties at the Civil Hosp., Kutkal, Northern Shan States, on the 16th March 1901.
- Hosp. Asst. **Dhaneswar Panda** relinquished ch. of his duties with Capt. Ramny's escort at Vinghal, Northern Shan States, on the 17th March 1901, and assumed ch. at the Police Hosp., Lashio, Northern Shan States, on the 29th March 1901.
- Hosp. Asst. **Golam Mustafa** held ch. of addnl. duties at the Police Hosp., Lashio, Northern Shan States, from the 5th to the 29th March 1901.
- Hosp. Asst. **Brij Lal** assumed ch. at the Gen. Hosp., Mandalay, on the 7th March 1901.
- Hosp. Asst. **Behari Lal** relinquished ch. at the Police Hosp., Pakokku, on the 5th March 1901 and assumed ch. of his duties with the Southern Chin Hills escort under Capt. McCrea at Pasok, Pakokku dist., on the 12th March 1901.
- Hosp. Asst. **Behari Lal** relinquished ch. of his duties with the Southern Chin Hills escort under Capt. McCrea at Pakokku on the 27th March 1901, and assumed ch. at the Police Hosp., Pakokku, on the same date.
- Major **T. W. Stewart, I.M.S.**, made over, and First Class Milly. Asst. Surgn. **A. H. Nolan** assumed, executive and med. ch. of the Akyab Dist. Jail on the 1st April 1901.
- Asst. Surgn. **Shah Abdul Latif**, on proceeding to Rangoon to give evidence in court, made over, and Hosp. Asst. **D. Swami Das** assumed, ch. of the duties as Med. Offr., Salween dist., at Papun, on the 5th April 1901.
- Hosp. Asst. **Anant Singh**, on return from leave, assumed ch. at the Civil Hosp., Paungde, Prome dist., on the 9th April 1901.
- Hosp. Asst. **Rash Behari Ghosh** assumed ch. of addnl. duties at the Jail Hosp., Akyab, on the 18th March 1901.
- Hosp. Asst. **Abdur Rahman** assumed ch. of the Police Hosp., Myitkyina, on the 6th April 1901.
- Hosp. Asst. **Syed Sajjad Hussain**, on proceeding on one month's privilege leave, relinquished ch. at the Gen. Hosp., Rangoon, on the 4th March 1901, and on return from leave assumed ch. at the Gen. Hosp., Rangoon, on the 4th April 1901.
- Hosp. Asst. **Behari Lal**, on transfer to Mandalay, relinquished ch. at the Police Hosp., Pakokku, on the 4th April 1901.
- Hosp. Asst. **Bhola Ram**, on transfer to Myaungpaya, relinquished ch. at the Gen. Hosp., Rangoon, on the 10th April 1901.
- Hosp. Asst. **Syiem Kishore Dey**, on transfer to Mandalay, relinquished ch. at the Outpost Hosp., Fort White, Chin Hills, on the 14th March 1901.
- Hosp. Asst. **V. Narasimhan Naidu** relinquished ch. at the Civil Hosp., Falam, Chin Hills, on the 11th March 1901, and assumed ch. at the Police Hosp., Fort White, Chin Hills, on the 13th March 1901.

ORIGINAL ARTICLES.

SOME REFLECTIONS CONCERNING PRIMARY STERILITY.*

BY ABRAHAM BROTHERS, B.S., M.D.,

Visiting Gynecologist to Beth-Israel Hospital; Adjunct-Professor of Gynecology to the New York Post-Graduate Medical School and Hospital.

EXCEPTING physical suffering, there is perhaps no single condition which causes greater distress to the average woman—be she of high or low estate, ignorant or cultured—than a childless wedlock. Hence the dispensaries and offices of physicians are daily visited by hundreds and hundreds of these women—oscillating from place to place—in quest of children. Some succeed in being benefitted and become pregnant. The large majority, alas! go on through life in a state of hopeless infecundity. As they grow older and more resigned, they shrivel up with marvellous rapidity, acquire all sorts of nervous and dyspeptic ailments, lose gradually all traces of their former youth and beauty, and sooner or later, in the "slough of despond," each asks herself the same question: What am I living for?

To this eternal gnawing and hunger only too often is added the plaint of the disgruntled husband, who, on his side, laments the misfortune of the wasting of his own manhood without progeny, because of the mortgage for life to a childless partner. So that, while the man certainly deserves sympathy, the condition of the woman is truly pitiful; and thus it is that if they stick to one another they go through life the select victims of fate, with a burden which for its support requires the maximum of fortitude and resignation.

In ancient times laws were enacted by which barrenness could be punished by the dismissal of the wife. After ten years, according to the Mosaic law, the husband, by mutual consent, was permitted to assume a new alliance, and even to-day among the orthodox Jews this law is still respected. In ancient Rome, "although the legal right was recognised, it is said not to have been acted on for a period of 500 years, and SPURIUS CARVILIUS is said to have been the first to put away his wife for barrenness."

On the other hand, although the Roman Emperor JUSTINIAN allowed divorce for impotency, it was not before the year 1677—thanks to the discovery of spermatozoa in semen made by a pupil of ANT. v. LEEUWENHOEK—that the essential factor of the male secretion requisite for procreation was first established. Curiously enough, however, it was not before the year 1820 that the two French physiologists, PAVIST and DUMAS, could convince the world by means of animal experimentation that fructification was impossible without spermatozoa.

A study of one's own cases is always fascinating and instructive. Discarding hundreds of cases met in the course of fifteen years' practice, but of which no notes were kept, and similarly excluding cases met in quite

a large dispensary practice, I have limited this study to private cases, of which I have careful histories, and which have been watched during greater or lesser periods of time. My notes embrace 250 women.

The ages of these women were noted as follows:—

	Per cent.
Under 20 years ...	3
Twenty to 30 years ...	77
Thirty to 40 years ...	19
Over 40 years ...	1

As might have been anticipated, more than three quarters of the women—more correctly 80 per cent.—were under the age of 30. Quite a few women on the other side of 35 years still had hopes.

The duration of marriage varied considerably. A few of the cases became anxious before they had been married a year. During the first, second, third and fourth years the women were about evenly distributed, and represented 60 per cent. of all the cases.

The remaining 40 per cent. had been married for periods of time ranging between 5 and 30 years. No less than 15 per cent. were married 10 to 20 years. Could anything more eloquently express the tenacity of hope which clings to such a large proportion of these poor women in search of fertility after so many years of sterility?

It may be well to state at this point that the present study is only interested in cases of so-called "primary" sterility. I do not take into consideration that large class of women who have never borne a child because of repeated miscarriages, nor those, having had one or several children, who fail to have more. These cases belong to the class of so-called "secondary" sterility and constitute a study in themselves.

The responsibility of the male has been repeatedly estimated by other observers. Most writers place this ratio of male to female as 1 and 10. GIBBS has placed it at 1 in 6 and KEHNER as large as 1 in 3. In such cases of course the woman has been assumed to be perfectly healthy, and the man has been found to present the defect resulting in sterility.

In my records I find notes of 72 healthy women whose husbands were examined or sent their semen for examination. To account for this apparently small number of men, I will state that where the wife presents lesions of the genital tract sufficient to easily account for sterility, I consider it superfluous to subject the husband to examination. Generally such women suffer from other symptoms, which justify treatment without regard to the single symptom of sterility; so that, roughly speaking, only once in every four cases is it necessary to take the husband into consideration.

Of the 72 men examined, 22 were pronounced healthy as far as the elements of potency and fructification were concerned. The other 50 were held responsible for the barren wedlock. In other words, one out of every five husbands was responsible for the sterility. Now, if we added a certain number of women with pelvic disease—endometritis, salpingo-oophoritis, pyo-salpinx—and were

*Reproduced from the New York Post-Graduate.

able to clearly trace these conditions to latent or active gonorrhoea presented to the hapless bride on their wedding night, how, indeed, would the mighty fall and the lord and master of the tribe still further tumble down from his high pedestal!

In the 50 men the following conditions were noted:—

	Cases.
1. Congenitally undeveloped testicles ...	1
2. Double epididymitis ...	3
3. Syphilis ...	1
4. Gleet or gonorrhoeal discharges ...	6
5. Impotency, complete or partial ...	5
6. Complete absence of semen ...	1
7. Complete absence of spermatozoa ...	25
8. A few and feeble spermatozoa ...	8
Total ...	50

Thus in 53 cases the spermatozoa were nearly or completely wanting, and in one case there was no semen at all. Five of the men could not perform the sexual act properly. Three men had had double epididymitis, and in another the testicles were undeveloped. The cases of syphilis and gonorrhoea were, in the writer's opinion, at least indirectly responsible for the sterility.

The subject of impotency or sterility in the male only interests us from the standpoint of the gynecologist. The woman, after a carefully made examination, was told to send her husband if nothing abnormal was discovered. Ordinarily it is the husband who drives the woman to the doctor for examination and treatment, but when his turn comes, it is usually a different matter. From motives of modesty or self-inflation regarding his virility, it is frequently difficult, or even impossible, to get him to call. Under these circumstances, I have the semen (caught in a condom during intercourse) sent over within a few hours after connection to my office.

In normal cases the semen amounts to about one or two drachms and shows numerous spermatozoa under the microscope. They are seen moving about, wagging their tails, attacking cells, crossing each other's paths, rotating on their longitudinal axes and moving from one point to another with considerable celerity.

In the abnormal cases the semen is usually thin and watery. The quantity is diminished, and in some cases may be entirely absent. Under the microscope spermatozoa may be entirely absent, although numerous fields are examined and repeated specimens sent. In some of these cases the same result was found months and years later, although exceptionally a later specimen would show spermatozoa. In a limited number of the cases a few spermatozoa could be found. These possessed little or no mobility, varied in size, and occasionally consisted of moving heads without tails.

In twelve cases nothing abnormal could be found in either male or female; that is, in less than one-half of one per cent. of cases of sterility we are unable to explain the origin of the trouble. This is, to be sure, a confession of ignorance; but, fortunately for our science, the proportion of such cases is exceedingly trivial. It is, however, likely that from this class prin-

cipally the cases of undiagnosed or late pregnancy which we occasionally hear of, in which pregnancy supervenes years after all treatment has been suspended—is derived.

In the women who were considered responsible for the trouble, the causes of the sterility were classified as follows:—

	Cases.
<i>General conditions:—</i>	
Obesity ...	7
Alcohol and morphia habits ...	1
	—8
<i>Pelvic Peritonium:—</i>	
Pelvic abscess ...	1
Pelvic tumor (?) ...	3
Pelvic peritonitis ...	14
	—18
<i>Adnexa:—</i>	
Undeveloped ovaries ...	6
Ovarian tumor ...	9
Salpingo-oöphoritis ...	28
Pyosalpinx ...	7
	—50
<i>Cervix and Uterus:—</i>	
Pinhole os ...	5
Conical cervix ...	1
Stenosis cervical canal ...	22
Undeveloped uterus ...	14
Retrodisplaced uterus ...	22
Anteflexed or anteverted ...	7
Prolapsed uteri ...	2
Fibroids ...	5
Endometritis and endocervicitis ...	15
	—93
<i>Vulva and Vagina:—</i>	
Unruptured hymen ...	1
Vaginal bands ...	1
Vaginismus ...	3
Gonorrhoeal vaginitis ...	6
	—11
Total ...	180

It was previously pointed out that, besides a working knowledge of the microscope for the proper examination of the semen, the practitioner must have a good general knowledge of possible conditions present in the male. The sarcasm of pure gynecological specialism could not be better illustrated than in the management of sterility.

I now add that, concerning the female, it is likewise necessary for the practitioner to have had a certain amount of schooling and practical training in the branch of diseases of women. It is not intended that every practitioner shall have had experience in the performance of laparotomies and major pelvic surgery. It is only suggested that the general practitioner shall be a good "all-round" man, who is able to make a correct diagnosis before undertaking the cure of sterility with the means at his disposal.

From the large list of conditions which may result in sterility in women, it will be readily seen why it would be perfectly absurd, in the space of a short paper, to

attempt to enter into a detailed description of each. Such an effort would mean the writing of a text-book—and a very large one at that—on gynaecology. A superficial glance, however, may prove interesting and instructive.

It is encouraging to note that 62 per cent. of the cases were accessible to palliative treatment, general treatment or minor surgery; in other words, these cases were entirely within the domain of the general practitioner. They embraced general conditions, like obesity, or abnormal local conditions in the vulva, vagina, cervix and uterus.

The balance—or 38 per cent.—belong to the pure gynaecologist. They represent the inaccessible lesions—involving, as they do, the adnexa—which are intraperitoneal and can only be reached through the medium of major surgery.

The temptation on the part of the general practitioner to treat every case of sterility is certainly great and partly justified by the above figures. And yet errors are so frequent! I know of no condition in which the physician is more justifiably open to censure than when he has a woman under a course of treatment for sterility, and it is later discovered by some able colleague that the husband's semen lacks spermatozoa. Does this look impossible? If so, let me assure you that in my notes 14 women underwent treatment for the cure of sterility at the hands of colleagues by means of sounds, dilators, pessaries, tampons, curettings, etc., when the semen of the husband did not contain a single spermatozoon.

It may seem strange that I have been able to follow up the subsequent history in only 70 women who were treated or operated for sterility. This will be readily understood when it is pointed out that few of these women persist under the care of one practitioner for any length of time. Most of those to whom operative relief is suggested go scampering off like frightened deer. They grasp at every new name, small or big, as it reaches their ear from some successfully (or accidentally) cured case. Many of my hospital cases who were subjected to smaller operations—like dilatation, dissection, curettage or fixation operations—were subsequently seldom heard from. Is it not probable that their very silence meant success in a certain number of cases?

So that, taking everything into consideration, I am inclined to believe that the proportion of ultimate successes is really larger than I am at present in position to prove. As it is, I know certainly that 12 per cent. were positively benefited and later became pregnant. This may be a poor showing, but it certainly bears the garb of veracity, and what we are after is not probabilities, but cold, naked truth!

Excepting sterility due to general conditions in the female and errors in the male, the management of this infirmity naturally falls into two categories:—(1) Those cases in which the lesions are accessible and can be attacked at the vulva or through the vagina and uterine interior. (2) Those cases in which the trouble is fur-

ther back, and is located in the tubes, ovaries and pelvic peritoneum.

In the first set of cases a prospect of cure is offered by means of local measures, pessaries and the minor gynaecological operations. In the second set of cases the patient usually suffers from other symptoms besides sterility, which usually justify the surgeon in opening up the peritoneal cavity and attempting to rectify the pathological conditions present. Of course this set of cases belongs exclusively to the trained gynaecological specialist, not to the general practitioner, nor even to the general surgeon.

The prospects of success in any given case are usually doubtful, and I never commit myself to a positive guarantee. Having sifted the case thoroughly, one is only justified in promising rectification of abnormal conditions, with the probability of overcoming the associated sterility. This is particularly true the older the patient, and the cases are indeed very rare in which sterility has been overcome after the age of 35. Similarly will results be more promising the sooner after marriage the case applies, when frequently the mere aseptic introduction of a sound or replacement of a displaced uterus with a pessary may suffice in overcoming the obstacle to impregnation.

Still I know of two cases of pus tubes in women in which the husbands were actually suffering from gonorrhoea, and who were advised to have the tumors removed, who, without operation, became pregnant, and have since given birth to several children. On the other hand, the most hopeless cases of sterility are those presenting lesions of the tubes and ovaries. Considering the encouraging reports of authorities like A. PALMER DODD after conservative operations in such women, we have reason to hope that even here the proportion of hopeless cases of sterility will still further be reduced. The observation of ROBERT T. MORRIS in this connection is fraught with extreme suggestiveness. In one woman, whose ovaries had previously been removed, he grafted on the broad ligament ovarian tissue freshly removed from another woman. In this case, not only did menstruation return, but actual pregnancy, which, unfortunately, because of pelvic adhesions, was disturbed and terminated in abortion.

With our modern comparative security in aseptic intraperitoneal work, I have in a number of cases invaded the peritoneal cavity through the vaginal or supra-pubic route, broken up adhesions surrounding the adnexa, sounded the tubes and attached the fimbriated end by suture to the corresponding ovary. Although probably a dozen cases were thus treated without a fatality, I am not in a position at the present moment to give any definite results, as all of this work is too recent. In the near future I hope to have something to say of interest in this connection.

So that while the past, in my individual experience, has offered success in about 10 per cent. only of the cases treated of primary sterility, the future seems to present a brighter and more encouraging state of affairs.

RELATION EXISTING BETWEEN THE SEXUAL ORGANS AND INSANITY, WITH SPECIAL REFERENCE TO MASTURBATION.*

By J. W. ROBERTSON, M.D.,

Livermore, Cal.

No subject connected with medicine has attracted greater attention than that of the relationship said to exist between the functional nervous and the reflex irritations from diseased bodily organs. There was no insufficiency of eye muscles; no error of refraction; no deflected septum or nasal growth; no disease of the stomach, liver, kidneys or sexual organs which could not be made to account for an existing megrim, epilepsy, neurasthenia or insanity. Patiently we have had to unlearn much that our specialists have taught us. The oöphorectomies of BAKER BROWN have almost been forgotten; the slitting operation of Sims is but rarely practised; and the more recent tentomies of STEVENS have been discredited; while professional opinion is holding in check the thousands of oöphorectomies once so freely performed. Especially have the insane suffered at the hands of specialist, for above all neuroses insanity is supposed to have a reflex origin, and its causative relationship with the sexual organs has had general professional acceptance. So generally is this recognised by the public that no woman can become insane without her friends demanding uterine investigation. Like many popular superstitions, there is a grain of truth as a basis for these deductions. In many cases of insanity there is a periodical increase of violence; and in woman this increase seems to bear a close relationship to menstruation, either preceding, following, or complicating the period; yet the periodical outbreaks also occur in men. The ancients, more logical, if not more learned than ourselves, attributed it to the influence exerted by the periodical return of the full moon, calling it lunacy rather than to a condition which could not possibly affect the male. Ovulation and menstruation, so evidently complicating the mental state, draw attention to the organs of generation, and when it was found that oöphorectomies could be safely performed, and that patients recovered after such mutilation, when gynaecologists could conscientiously report that there was a slight uterine laceration or malposition, such diagnoses were accepted as responsible for the mental state. As a matter of fact, no woman who has borne a child is without laceration, and no two uteri hang exactly alike, these organs not being fixed, but designed to be freely moveable.

But a few years ago oöphorectomy was heralded as a panacea, and hundreds of women were successfully speyed, occasionally with apparent benefit. The results obtained in the majority of cases, however, are a living protest against its indiscriminate performance. Especially amongst the insane, patients otherwise curable, have been rendered hopeless. For the ovaries seem to act in a capacity very similar to the governor of a steam engine, and in some unknown way regulate nervous force and energy. The menopause, as produced by nature, is often accompanied by manifestations of serious mental and nervous disturbance. When artificially and forcibly produced, this disturbance is still more distinctly exhibited, and the nervous energy manifests itself in explosive and uncontrollable mental or hysterical outbreaks. Insanity is the result oftentimes of physical exhaustion complicating a nervous diathesis, and any physical condition that exhausts the strength and depresses the vital forces will precipitate an attack in persons predisposed. For this reason a subinvolved uterus, enlarged ovaries, or other conditions producing a menorrhagia or exhausting discharge, or a flexion pressing un-

duly on either bladder or rectum, may be powerful predisposing factors. This same statement is true of all organs which are the seat of chronic irritations that disturb the general health. In fact there is no general disease of the body, or chronic disturbance of any special organ, which may not act as a causative factor in the production of insanity. Even the parturient state, prolific as it is of morbid and perverted ideas, is remarkably free from well marked insanity; while the puerperal condition, which is so frequently accompanied by mental outbreaks, has, as a cause, a systematic toxin rather than a local irritation. The clitoris, once so generally held to be the scapegoat of so many ills, has resumed a position commensurate with its size, and we look to other organs on which to base our Phallic worship. While men have neither ovary, uterus nor clitoris, they do possess organs closely analogous, and one of them, at least, has received equal attention as a peg on which to hang their many mental afflictions. Were men forced to take their own prescriptions, and were they compelled to submit to the operations they have so humanely devised, removal of the testicles and amputation of the penis would long ago have been vaunted as specifics, and while much good to the world at large would undoubtedly have resulted, yet it is not probable that the statistics of insane cases cured would have been largely increased. Under certain circumstances, castration is undoubtedly indicated, yet the personal risk a surgeon takes in asexualizing a man will always prevent its undue performance.

Of all sexual conditions complicating insanity, none occupy the importance, either in the professional or lay mind, that masturbation holds. It is a vice of most frequent occurrence amongst our sane population, and it is almost universally practised by the insane. That masturbation alone, in the normal individual, produces insanity, is certainly not true; for were this the fact, the accommodations of our asylums would have to be so increased as to hold at least 500,000 rather than the 5,000 insane credited to our State.

Authorities on insanity do not teach that close connection to exist, which seems to have such popular credence.

LONDON GARTER GRAY holds: "It is possible that the habit may sometimes act as a predisposing or exciting cause of disease by an excessive loss of seminal fluid, if the masturbation be frequently repeated; but I have seen very few instances in which this casual relationship was indicated, and I have never yet seen a case of any disease that has been directly caused in this manner. I do not wish to be understood, however, as saying that it is not a habit extremely deleterious to the general health; but I wish to make it plain that its effects are more largely psychical than physical."

BLANFORD says: "It is a fact, of which all must be aware, that masturbation by itself is not a frequent cause of insanity. Were it so, in many of our schools insanity would be an everyday occurrence. In some persons, already predisposed, it may light up the disorder, and may co-exist with it in others without being the cause."

SAVAGE describes its occurrence in extreme old age: "I have even known of it habitually indulged in by a chronic lunatic of over ninety years of age. Masturbation, then, may occur as a cause of insanity in either sex; but it occurs still more frequently as a symptom of mental disorder."

In speaking of the complications induced by masturbation, CLOUETON says: "As a complication of a symptom of almost every form of insanity, the habit of masturbation is lamentably common." He again observes that: "It most frequently complicates adolescent, hysterical, puerperal, epileptic, and congenital forms of insanity, and, curiously enough, is not always absent

* Read before the State Medical Society, April 1898, and reproduced from the *Pacific Medical Journal*.

in the dementic and senile forms. I have seen a senile melancholic of seventy-five suffer intensely from the effects of the practice. In all these, however, it is one of many symptoms of mental disease. It is not the chief cause, nor is it the chief symptom present, and it does not colour the cases so as to give them any distinct mental features."

There should be a sharp distinction drawn between the masturbation of insanity and insanity produced by masturbation, or the so-called masturbational insanity. Even when masturbation is most persistent, there is no ground for positively claiming it as a causative factor; this we term the "masturbation of insanity." It is frequently merely the first symptom observed.

A few years ago a young preacher of high moral and upright life, possessing an emotional and nervous temperament, held a revival meeting. He developed insomnia, neglected to properly nourish himself, became more and more exhausted, and finally so violently insane that restraint in the county jail was necessary. He openly practised masturbation, and when sent to the asylum, persisted in his attempts during the whole of his maniacal attack. It was publicly stated, and is still believed in the country where he lived, that masturbation was responsible for his mental state, and he undoubtedly is still held up to hundreds of misguided youths as an awful example.

Insanity always causes a loosening of moral ideas and a loss of self-restraint. The animal nature predominates, and, especially in acute mania, attempts at self-abuse are constant. But there is an insanity due to masturbation. It possesses distinct clinical features, and is not to be confounded with those conditions where masturbation is simply a complication. It is not of frequent occurrence, and is only manifested in those possessing a strongly marked nervous diathesis. It is especially a disease of adolescence, often occurring at the age of fifteen or sixteen. It develops slowly and shows many premonitory symptoms of moral and physical degeneration. The boy becomes more and more peculiar; he will not enter into manly sports; he develops mannerisms and eccentricities of dress; is morbidly self-conscious, and does not properly develop, either mentally or physically. His conversation is often silly, his ideas puerile, and CROFTON well summarises it as "generally beginning by an exaggerated and morbid self-feeling, or by a shallow, conceited introspection, or by a frothy and emotional religious condition, or by a restless and unsettled state with foolish hopings of philanthropic schemes. There is no continuity or force in any train of thought or course of action. Then comes a melancholic stage of solitary habits, disinclination for company, especially that of the other sex, irritability, variability of mood, hypochondriacal brooding, vacillation and perversion of feeling towards near relations. Suicide is often thought of, and oftener talked of, but masturbation makes most of its victims too cowardly to kill themselves."

To me it seems that the causation of insanity receives but scant professional attention; that physicians accept the statements of friends with too much confidence, and often confound early symptoms with exciting causes. Time, and again the first symptom observed is increase in religious conviction, some fancied love affair, or other emotional state, and, in all stenic cases, it is either secretly or shamelessly practised. For these reasons the records of our asylums, at least as regards the etiological value of the commitment paper, are absolutely worthless; cause and effect being often confounded. Early symptoms of emotional and moral disturbance are most apparent where the underlying vice of constitution, more difficult of detection, is really the predisposing factor. Insanity is, in nearly all cases, a functional neurosis.

Like migrain, epilepsy, hysteria and neurasthenia, it has no demonstrable pathological basis. It always occurs most in those possessing the nervous diathesis, save the cases which are based on organic brain lesions. In other words, unless the soil be suited for its growth, and the seed be sown, no harvest will result. Given the proper environment, even the most trivial cause may precipitate the attack. Ill health, improper nourishment, any disease that weakens the body, will suffice. If the man be strong and vigorous, and possess none of the bodily or mental stigmata of degeneration, he can indulge in any form of sexual abuse, and it will not physically injure him to any greater extent than will normal sexual intercourse practised equally immoderately. Morally, however, a vast gulf separates the two classes. In the one there is simply a feeling of gratified sexual appetite, and possibly mental elation; in the other, a constant degradation and always present feeling of shame. This may be greatly exaggerated, provided there is a psychopathic heredity present. With these masturbation, even when slightly practised, assumes a wonderful hold on the imagination of the patient. He attributes his insomnia, the pressure in his head, the morbid depression, "that tired feeling," and many other neurasthenic symptoms, to "early indiscretions." He is filled with morbid fears, and to his real mental and physical suffering is added the constantly manufactured imaginary ideas gained from newspaper advertisements. There are thousands of men who go through life burdened down with secret shame; bachelors, because they fear impotence; cowards, who dare not face the world, believing that that vicious habit is stamped in their faces; useless, either as citizens or supporters of the commonwealth.

One writer well describes such a case as being "thin, pale and pasty, with a cold, clammy skin, a haggard face, and an eye that never looks straight at you. He has weakness in the back, pains in the head, palpitation of the heart, impaired sight, muscular relaxation, and sometimes spermatorrhoea. But for a complete record of the feelings and symptoms of the youthful masturbator, one should rather go to those shameful quack advertisements put into the country newspapers than to medical books. They are there set forth at large with just enough concealment to make them suggestive. That such abominable suggestions of evil should be allowed to be scattered broadcast into the families of decent people, is to me one of the standing marvels of our social life. They do, and can do no good to any one; they aggravate the miseries of those who are suffering from the minor effects of this vice by keeping them constantly before their minds; they suggest evil thoughts to those who might be free from them, and they fatten the vilest of mankind. I verily believe—and I speak from some experience—that there are about as many people made insane from these advertisements, and the pamphlets sent out by the advertisers, as by the habit of masturbation itself."

His conscience is burdened with a sexual crime; he morbidly dwells on it and reads all quack literature. The normal bi-monthly emission is regarded as a pollution and proof of loss of sexual power. The phosphatic urine is semen flowing away and carrying with it his heart's blood. Appetite is lost, the body wastes, circulation is feeble, and the hands grow cold. He loses physical vigor and mental strength by morbidly dwelling on trivial symptoms. Slight aches and pains are magnified until finally a condition known as sexual neurasthenia is developed. He goes through life broken and dispirited. He develops hypochondria, but seldom does he become insane.

A MIRROR OF PRACTICE.

AN INTERESTING CASE OF OVARIAN DROPSY : LAPAROTOMY WITHOUT REMOVAL OF CYST : RELIEF.

By EDWARD BART, G.H.M.S.,
Civil Surgeon, Aurungabad.

ZOBADA Begum, *ætat* 45, inhabitant of Bid (where I served a year ago), a district 70 miles from this station, was brought to my dispensary with distended belly on the 12th April.

Her brother stated that a month ago he made up his mind to bring her here, but as she was not able to sit in a cart or palanquin owing to difficulty of breathing from extreme distension, he got her tapped at the Civil Dispensary of Bid, when several pints of fluid were removed, and the fluid accumulated again.

When admitted into my hospital her abdomen was greatly distended, and the patient was suffering from dyspnoea and acute dysentery. I gave her 10-gr. doses of Dover's powder three times a day, and she was cured of dysentery on the 14th April.

She stated that the swelling commenced in the face, next feet, and then lower belly. Before examining her organs to find out the cause of the dropsy, I tapped her abdomen with a medium-sized trocar and cannula to relieve her urgent symptoms on the 16th April (as purgatives, etc., indicated for this would only have done her harm after the recent attack of dysentery), and I failed to get a drop of fluid. After this I was told that the same thing happened in Bid, but the doctor there passed a probe through the cannula and teased the interior, when the stream began to flow. I was afraid to adopt this measure, and thinking the fluid to be thick and of an ovarian cystic nature, I removed the cannula.

On enquiry as to the nature of the fluid removed on the former occasion, the brother of the patient said that it was watery, and when allowed to remain, a sediment resembling gelatine formed.

The patient's own history pointed to one of ascites, but the failure of paracentesis abdominis (before examination) proved the reverse. I consulted the lady doctor attached to this dispensary on the 17th, who, after taking a brief history and making a physical examination, pronounced the case to be one of ascites from kidney disease. The next day I consulted the Inspector of Dispensaries, who, after subjecting the patient to a thorough physical examination, confirmed the lady doctor's diagnosis, and suggested tapping by a SPENCER-WELLS trocar, but the patient would not have the operation done.

I then examined the urine passed on the morning of the 18th April; quantity 18 ounces; colour deeper than normal; acid reaction; sp. gravity 1010; no albumen.

On the 19th I again examined the urine with the same results, with this difference, that the quantity passed then being 20 ounces.

So certain was I of the existence of ovarian dropsy, that I differed from the diagnosis made by my colleagues and took the following detailed history and made a thorough examination:—

HISTORY.

Patient states that about 18 months ago she noticed swelling on the face, and about a month later swelling of the abdomen commenced, and before it attained a large size she was treated medicinally which reduced the swelling a little. About two months ago the abdomen attained the present size and swelling of the ankles began. A month ago she was tapped, and about 20 days after it began to increase till it reached the present size.

She is married—no issue—no miscarriages—menstruation regular till onset of disease, but after she put herself under medical treatment, i.e. about six months after swelling began; she had profuse menstruation twice and three times a month, each period lasting four or five days—since eight months no menstruation.

SYMPTOMS AND SIGNS.

1. *Digestive system*.—Tongue clean, bowels regular, liver and spleen normal.

2. *Respiratory and circulatory systems*.—Pulse 120; respiration, when in a semi-recumbent posture, 28; temperature 98.4.

On Inspection.—The abdomen is uniformly enlarged; measurement round umbilical region 44 inches; umbilicus not pouched, flattened or everted, but almost normal; change of posture does not alter the shape of the swelling; skin thick, not shiny; no distension of veins; the ankles swollen and pit on pressure.

On Palpation.—Very indistinct fluctuation is elicited.

On Percussion.—In the recumbent posture there is slight resonance in the epigastric and umbilical regions, and dullness in the flanks; change of posture does not alter the percussion notes.

On the 21st I made an incision about half an inch in length midway between the umbilicus and pubis, and then tapped by SPENCER-WELLS trocar and cannula, and removed about 10 pints of fluid. I inserted my little finger, well oiled, into the wound and distinctly felt the cyst wall. A rubber drainage tube was inserted into the cavity, which frequently got clogged, and the tube had to be cleaned. After tapping, the presence in the abdomen of a large ovarian cyst was unmistakable and distinctly noticeable (left ovarian). Very little fluid came out afterwards beyond that which wet the bladder.

Character of fluid.—Like that from a serous cavity, but deeper in color. The fluid, when allowed to rest for some hours, deposited a thick mucous-like substance.

The fluid was coagulated by heat, but after being boiled in double its volume of strong acetic acid, it was redissolved and was converted into a translucent gelatiniform liquid. The next day the abdominal measurement was taken and it was 39 inches.

By the 23rd, i.e., on the third day of operation, the swelling of the face and feet entirely subsided without any medicinal treatment.

I prevailed on the woman for two days to have the cyst removed, but she positively declined; I thereupon sutured the wound on the 24th.

Progress.—On the 1st May I removed the sutures, the wound was perfectly healed, and discharged her on the 3rd from the hospital.

REMARKS.

The patient and her brother's history regarding the commencement of the swelling and the former tapping induced me to tap, without taking her history fully or examining her, in order to relieve her urgent symptoms; but after failing in paracentesis, I was convinced that it was a case of ovarian cyst, confirmed by the following. The healthy condition of the heart, liver and kidneys from repeated examination; the physical examination (though indistinct as regards percussion); the thick and not shiny skin of the abdomen; the character of the umbilicus, *verified* after making a preliminary incision and tapping by a SPENCER-WELLS trocar; the character of the fluid, physical and chemical; the feel of the cyst wall; the presence in the abdomen, after evacuating the fluid, of a bag-like process; the subsidence of swelling of face and feet without any medicinal treatment, and the non-accumulation of fluid in the abdomen till the discharge of the patient without any medicinal treatment.

NOTES ON TWO CASES OF CÆSAREAN SECTION.*

By J. FOREMAN, M.B.O.S., ENG.,

Sydney.

THE two cases I bring before you are too few to draw general conclusions from, but I made some mistakes, and as I hold that it is chiefly from this source we increase our knowledge, I think the best time to bring them under your notice is whilst they are recent, and they may possibly make it easier for others in the future.

The first case is that of Mrs. E., *ætat* 38; pregnant for the first time. She had been in labour twenty-eight hours when I saw her at 10 P.M. On examination, I found the pelvis filled by a large fibroid—the specimen is before you—and the os could just be reached in the right iliac fossa. The labour pains were strong, the uterus too large to remove per vaginam, and I thought rupture of the uterus imminent. There was no other course to adopt but to remove the child by section. She was taken to a private hospital, and section performed two hours later. In doing it, the usual incision was made, the uterus delivered out of the abdominal cavity and opened in front. I happened to incise the placenta, and I never understood what hæmorrhage meant till then. The child was quickly delivered and given to a nurse, the placenta removed, and the bleeding ceased. The question then was, what to do in the best interests of the patient. The tumour was so large, and situated so low

down, and she had lost so much blood, that I thought it wiser to do a Porro, which was done in the usual manner. The patient's condition was good, and temperature normal till the fifth day, when the latter began to rise, and on the eighteenth day she got phlebitis of the left leg. On the thirty-sixth day both parotids inflamed, and subsequently the right one suppurated. This is the first case of parotitis after section I have seen. She had a very miserable time, as the chart shows, until the tenth week; but she left the hospital quite well at the end of three months. The child is a remarkably fine one.

The second case is that of A. D., a dwarf 3 ft. 11½ in. in height, sent me by Dr. LAMB of Molong. She was seven months pregnant, and was kept in the Prince Alfred Hospital, and was looked after by Dr. CLELAND, to whose kindness I am indebted for the notes of the case. The conjugate diameter was 2½ in., the transverse 3 in. Of course, in a case such as this, section is the only mode of procedure, and Dr. THRING, who was good enough to interest himself in the case, agreed with me. We decided that it would be better to let the case go on as far as possible, and choose a day to operate without waiting for labour pains. Accordingly, on June 22nd, Dr. THRING and I operated. In opening the abdomen, though I had allowed for a very thin wall, still I made a slight incision into the uterus. We both tried to define the placental site without result, and in opening the uterus the placenta was out for about an inch on its lower border. The child and placenta were delivered just under three minutes from making the abdominal incision, and it was a great object lesson to see the remarkable manner in which the bleeding ceased on the contraction of the uterus. The uterine incision was brought together with interrupted catgut sutures, prepared in formalin, and the abdomen closed without drainage. The uterus was not delivered out of the abdomen in this case, but no fluid escaped into the cavity, and there was only a small clot of blood in the right iliac fossa, so that very little cleansing was required. The operation was performed about three o'clock in the afternoon, and six or seven hours later, when the pulse was about 80, she asked about the child. When told that it was like her, the pulse suddenly jumped to 140. It came down to 112 soon after. She got a good deal of distension and temperature running up to 102° on the seventh day, when it began to fall, and tenderness and swelling of the abdomen began to disappear, and her general condition was all that could be wished for. On the tenth day the house surgeon removed the upper sutures, when the wound gaped, and the bowels protruded, and she began to fail at once and died on the twelfth day.

Post-mortem.—Abdomen very distended. On opening, a quantity of foul-smelling gas rushed out. No fluid seen. The intestines on anterior surface were healthy-looking, but stuck together by light adhesions. In right lumbar region, the ascending colon and small intestine were adherent to the abdominal wall, and to one another. On pulling these away from the wall, areas of gangrene of intestine were found, while most of the intestine in this region was very unhealthy-looking. The uterus, tubes, ovaries, and bladder were cut out, and are here before you, and, as you see, are healthy. Kidneys healthy.

* Read before the New South Wales Branch of the British Medical Association, and reproduced from the *Australian Medical Gazette*.

Remarks.—Death in this case, in my opinion, unquestionably arose from the sutures being removed, and the wound gaping. She had a plastic peritonitis, such as we often see after sections, but when we find the tenderness and swelling subsiding, all anxiety vanishes, and in my experience, which has been pretty considerable, I have only seen one death after the eighth day, and that was due to a sinus not being drained to the bottom. The great distension had reduced the abdominal walls to almost paper thinness, and what I intended was to wait until the abdomen had got quite flat before interfering with the sutures, and then bind up tightly with strapping.

The disaster I can only attribute to my own want of forethought in not telling the house surgeon not to interfere with the sutures, and pointing out the reason. We cannot expect comparatively inexperienced men to notice for the first time the fine points of such a case on which so much depends, and it is a lesson that may be useful to others. The house surgeon is accustomed to remove the superficial sutures about the fifth day in ordinary sections, but in these cases you have strong muscular walls, so that it is nothing to be wondered at that he should think it perfectly safe on the tenth day. Nothing could exceed his pride in, or devotion to, the case, or his regret at the unfortunate ending. I am the only one to blame in the matter.

Time of Operation.—HOWARD KELLY lays it down as a good rule that one should not wait until labour pains set in, as the advantage of being able to operate in daylight, and everything prepared, speaks for itself. I cannot understand why it should ever have been thought necessary to wait for labour, unless for the dilatation of the cervix to allow of drainage; but at the end of term the cervix is sufficiently patent for that purpose.

Delivery of the uterus.—It seems to me a much better and simpler method, and one likely to prevent fluid escaping into the peritoneal cavity, to bring the uterus out first, protect the bowels, and then open it.

Incision.—I suppose in the majority of cases the placenta is incised, and when you consider the question, it is very easy to avoid it. Instead of beginning the incision at the fundus, if you open the uterus in the lower half, you could then enlarge it upwards and downwards sufficiently before opening the amnion.

Sutures.—HOWARD KELLY advises against catgut, as they may get absorbed and the wound gape. You see these after twelve days, but they are prepared in formalin. I should be dubious about using any other.

The after-treatment is similar to any other section, except that at the time of operation I think it good practice to leave a gauze drain in the uterine cavity, protruding, of course, outside the vagina, when dry pads are kept and changed whenever saturated.

SARCOMA OF THE LOWER JAW : EXCISION OF JAW : RECOVERY.

By M. N. OHEDAT, RAI BAHADUR, L.M.S.,

Chief Surgeon, Bara Banki, Oudh.

BHAGI, a Hindu male, aged about 40 years, very weak and anæmic, was admitted into the Sadar Dispensary,

Bara Banki, on March 16th, 1901, with a tumour affecting the left half of the lower jaw. It was of the size of an orange. The history given by him was that a small swelling formed over the left half of the body of the lower jaw about four years before his admission into hospital. This gradually increased in size until it encroached on the ramus as well. It was at first painless, but became painful about a year ago. It was hard to the feel, though there was an indistinct sense of fluctuation. The skin was not implicated, and, as far as I could judge, the glands were not involved. It appeared to spring from the outer aspect of the jaw. There was a small opening over the centre of the tumour which discharged sanious matter. On passing a probe, which went in for about 1½ inch, it gave a sense of passing through some soft and doughy substance. No dead bone was felt. The tumour was diagnosed to be a sarcoma. The nature of the disease having been explained to BHAGI, it was suggested that a surgical operation was the only means of curing him. He readily gave his consent to any operation that might be necessary, and it was decided to excise the entire left half of the lower jaw.

On 18th March 1901, the patient having previously been shaved, I proceeded to excise the left half of the lower jaw with the help of Miss K. BONMAR, lady doctor, and Assistant Surgeon E. MILLICANS. A piece of silk was passed through the tip of the tongue, in order to be able to keep a command over it. The usual incision was then made and the facial artery ligatured. On dissecting the lower flap, I noticed that the submaxillary gland was much enlarged and firmly adherent to the tumour. The bleeding was furious; the patient became very pale and almost pulseless, and it appeared to me that it would be wiser to give up the operation, stitch up the incision, and send the patient to bed. As, however, removal of the tumour was the only means of curing the patient, I decided to proceed with the operation. An injection of M 20, ether sulph., was given, and it improved the pulse. The bleeding points were picked up with pressure forceps. The upper flap was then dissected chiefly with a pair of blunt-pointed scissors, and the tumour was noticed to extend upwards as far as the zygomatic arch. The left central incision tooth was then extracted and the symphysis sawn through. The remaining attachments having been removed, chiefly with scissors, the bone was disarticulated and removed, together with the tumour and the enlarged gland. Some of the bleeding points were then ligatured and the flaps brought together with silk-worm gut and horse-hair sutures. Iodoform dressings were then put on.

After the operation, a second injection of ether was given. The patient was extremely low and the pulse was thready. When he regained consciousness, an injection of morphia (½ gr.) was given. He was then removed to bed. The subsequent treatment consisted of quinine internally, nutrient enemata on the first day, and syringing the mouth every six hours with weak CONDY'S fluid. The dressings were changed every day. On the second day after the operation he was allowed to drink milk, and on the fifth day he was able to swallow a little soft khichri. He made a good recovery, and left hospital on April 3rd, 1901.

Remarks.—Most works on surgery say that an operation for malignant disease of the lower jaw is rarely justifiable. In the case under report, as the skin was not involved, and as I did not know that the submaxillary gland was implicated, I thought it was one of those cases in which an operation was justifiable. The bleeding, however, was so free that I was afraid the patient would not leave the table alive. I have performed this operation several times for non-malignant disease and extensive caries, and have always considered it to be one of the neatest operations in surgery. I shall, however, in future think twice before I undertake to operate for malignant tumour. One point deserves special mention.

In describing the operation, some authors say that, when disarticulating the condyle, the bone should be well depressed and twisted somewhat outwards. Others, however, say that the jaw should not be rotated outwards, for fear of wounding the internal maxillary artery. I do not think it is possible to disarticulate the bone by merely depressing it. If ever kept close to the bone, one would be pretty sure of avoiding the artery, even if the bone were rotated outwards.

CASE OF SOFT CANCER (GLYOMA) OF THE EYE IN A CHILD WITH SECONDARY PAROTID GROWTH: ENUCLEATION OF THE EYE-BALL AND EXCISION.

By DADABHOY P. PESTONJEE, G.B.M.S.,

Medical Officer in Charge Karimnagar Dispensary,
H. H. The Nizam's Dominions,
Hyderabad, Deccan.

BHOONER, a female child, aged 6 years, was admitted into the Karimnagar Hospital in December 1899.

History.—The child had a severe attack of confluent small-pox three years ago, with suppurative keratitis as a complication, and subsequent destruction of the eye-ball. Three months ago the mother of the child noticed the right eye protruding, also a small roundish growth underneath the right ear, for which she consulted the village barber, who tried to remove it by putting a live charcoal over it, but he failed, and at last the child was brought to the hospital.

General condition.—The child is weak and emaciated; the right eye-ball is protruding; the sclerotic is thinned; the cornea has disappeared in the centre, and a fungoid bleeding mass is protruding, coated with a dirty yellow scab. There is a discharge of thin sanious pus and blood, and on slight irritation the child had sharp attacks of hemorrhage, which has severely told upon its constitution. There is a small growth in the right parotid region about the size of a small orange; it is fixed and immovable; its surface is red, has a small ear about half inch in diameter. The skin over it is brawny and is already implicated, the gland under the ear is not enlarged.

Operation.—On the morning of the 9th December the child was placed under the influence of chloroform and the diseased eye was removed. An incision was made round the cornea through the conjunctiva and subconjunctival fascia, and the external rectus was pulled forward by a strabismus hook and divided about half an inch from its insertion into the sclerotic, the other muscles were next picked up and divided in the same way, and the eye-ball freed from its surrounding attachments was dislocated, and the optic nerve and the ophthalmic artery were severed by one or two sharp strokes with the scissors. There was some hemorrhage, which was got under immediate control with a plug of antiseptic flax and pressure applied by a pad and bandage.

The next step was to remove the secondary growth in the parotid region. An elliptical incision including the small tumour, about two inches long, was made, when immediately free hemorrhage occurred, the finger was introduced into the wound and the sharp tumour turned out quickly; caustic oil dressing and slight pressure applied by a cotton pad and a bandage; the child was discharged cured 12 days after the operation.

On the 27th January, i. e., after the lapse of a month and a half, the child was brought again into the hospital with a recurrent growth, similar in nature and size, in the parotid region of the same side. The child was put under chloroform; the new growth was excised, one or two bleeding vessels ligatured, and fuming nitric acid was applied to the raw surface and the wound dressed with carbolic oil. This time the child was kept under observation for about a month, but no recurrence occurred.

Remarks.—This was a case of small round-celled sarcoma, the so-called soft cancer of the eye, which are so common in children, with a recurrent secondary growth in the parotid region.

Indian Medical Record.

22nd May 1901.

TRUTHS AND UNTRUTHS ABOUT INDIAN GRADUATES AND THE I. M. S.

On the 20th February last, the Council of the Indian Medical Association addressed the Government of India as to the advisability and the desirability of allowing graduates of Indian Universities to appear in a simultaneous competitive examination for the I. M. S. The following is an extract from the letter alluded to:—

"Attention is also made to an alleged dearth of candidates for the Indian Medical Service examination held in London, and in both the above connections it is suggested that a certain number of vacancies in the Indian Medical Service may be reserved for competition among graduates of Indian Universities who should be subjected to tests similar to those of the London examination."

In the reply of the Government of India, dated the 13th April, the following passage occurs:—

"More than the requisite number of qualified men have responded to the advertisements, and the Government of India do not find it necessary, or think it desirable, to alter permanently the terms of admission to the Indian Medical Service. More than a sufficient number of candidates to fill the advertised vacancies appeared at the recent examination for the Indian Medical Service held in London."

In connection with this subject, the following paragraph from the *British Medical Journal* appears:—

"The results of the last entrance examinations for the medical services have just reached India. The failure of the Royal Army Medical Corps to secure more than seven candidates is not very surprising, and will, it is hoped, hasten the inevitable increase in the emoluments offered. More serious is the fact that out of 32 candidates for 29 vacancies in the Indian Medical Service, only 28 qualified, while the great majority of them obtained much lower marks than usual."

May we not reasonably ask, in the public interests, how the medical advisers of the Government of India came to allow such a statement as that which occurs in the official reply to the Indian Medical Association to be publicly made, when the actual state of affairs, at the last competitive examination for the I. M. S., is at variance with their statement?

The Government letter says:—"More than a sufficient number of candidates to fill the advertised vacancies appeared at the recent examination for the Indian Medical Service held in London," while the *British Medical Journal* says:—

"Out of 32 candidates for 29 vacancies in the Indian Medical Service, only 28 qualified, and the great majority of them obtained much lower marks than usual."

Here we have the fact that for 29 vacancies only 28 men were found qualified, and the majority of these were men of an inferior professional status. In so serious a matter as this, it is surely a mere parody on truth, a trifling with clear issues in the face of the real facts concerning the last I. M. S. competitive examination, to say of such an exhibition that "more than a sufficient number of candidates appeared," &c.

It is lamentable that a great Government like that of India should allow its medical advisers to trifle away important issues in this contemptible manner. The fact

stands as the *British Medical Journal* puts it, namely, that the I.M.S. has ceased to be an attraction to even second rate medical men in Great Britain and Ireland, and it is only third rate men who are entering its ranks. Is it fair, therefore, that the medical needs of India should be so badly served? Would it not be fair and politic, under the circumstances, to put a stop to the drags of the British medical profession coming to India in the shiny disguise of military (?) officers (?) and is it not time to allow India to supply her own needs from her own universities?

If experts in England consider that a crisis has arisen in the matter of filling the I.M.S. with recruits from England, let the India Office do justice to India, and to the medical profession in this country, by giving graduates of Indian Universities a chance of entering the I.M.S. under exactly the same terms of examination, both professional and physical, as are made the tests of the present London competitive. We only ask for fair play for India and for her medical schools. Let us have it.

MODERN QUARANTINE IN ITS RELATIONS TO PASSENGERS, CREW AND CARGO.

In a paper read at a meeting of the American Public Health Association, Indianapolis, Ind., a few months back, Dr. ALON H. DORT, M.D., detailed his personal experiences in reference to the system of modern quarantine in its relations to passengers, crew and cargo. We curtail from a report in the columns of the *Medical Record* of New York. For some years past the speaker had been convinced that the methods now adopted, especially in connection with marine sanitation, was not in harmony with the actual facts presented by investigation and practical experience. The researches of PASTEUR and KOCH and others had established conclusively the germ origin of many infectious diseases, and, as a result of bacteriological investigation, the knowledge on this subject was now more in keeping with practical experience, and therefore little reason existed for the continuation of some of the methods employed in sanitation. Contrary to the popular belief, the most careful investigation, both from a scientific and a practical standpoint, had demonstrated that the clothing worn by those in health was not a medium of infection. This was also true as regards ships' cargoes. There were exceptions; but such were rare. The speaker gave several emphatic illustrations of this, but one will suffice us. The busy medical practitioner might during the day visit many cases of infectious disease, and might go from them to others without previously changing his clothing or performing disinfection: he had reason to believe that he did not act as a medium of infection: he saw no evidence of it in his own home, nor was evidence presented to him that he transmitted disease to his patients. If this were true—and it undoubtedly was—it was hardly reasonable to believe that danger existed in the clothing worn by those who were in good health, and had been for a number of days or weeks removed from an infected port or other exposure. Bacteriological research went far to confirm these views, for it had been shown conclusively that pathogenic

organisms could continue their existence for only a few hours when exposed in the presence of sunlight and air. Exception might occur: for instance when one, after close and prolonged contact with an infectious disease, put on an outside wrap and removed it after going directly to another apartment but a short distance away: infection might then be transmitted: but this was rare. Further, this possibility did not seem likely in maritime sanitation, except when infectious disease actually existed on the vessel arrived in port. The importance of this could hardly be overestimated: it meant that, as a rule, the disinfection of the clothing of persons in health could safely be dispensed with: thus, not only lessening the detention of ships, but diminishing the expense to commerce. A more thorough inspection of persons themselves for the detection of the mild, ambulant and convalescent cases was really necessary. When a patient had been given his clothing and effects, an apartment, and the required attention, and been surrounded with every possible sanitary precaution, and at the termination of his illness a careful and thorough disinfection had been performed, the public had received the full protection which was dictated by practical science. There was equally satisfactory evidence that a ship's cargo did not act as a medium of infection: if exceptions existed, the speaker was not cognizant of them. We have not space to follow the speaker in the illustrations in this connection. He believed that the idea that the clothing of healthy persons and ships' cargoes conveyed infection was derived from vague reports, and the license assumed by theorists in this respect was apparently limitless. No fair evidence was presented to substantiate such facts, and this went far toward making public sanitation a farce. The speaker was convinced that the future would show that if a vessel arrived in port, and there were no cases of sickness present on arrival, and none had occurred in transit, the vessel and its cargo would in no way act as a menace to the public health: from his personal experience he was satisfied as to this. The mild, ambulant and convalescent cases constituted the real danger when they were passed unrecognised. This was specially observed in cases of yellow fever, in which the frequency of mild cases was notorious. It was possible for a person suffering from a mild attack of plague or yellow fever to arrive on a vessel from a port issuing a clean bill of health, or believed to be free from quarantinable diseases and to pass an ordinary inspection, then proceed to some interior town, there to act as a medium of infection without being recognised as such. The main remedy for this was the proper and rigid use of the thermometer in all inspections. In the speaker's opinion these mild cases were chiefly responsible for outbreaks which from time to time occurred, and which could not be accounted for. The views expressed here were in harmony with the policy which the speaker pursued in the treatment of vessels arriving at the port of New York. This system of examination of a rigid nature of all passengers and crew to the exclusion of clothes and cargo offered the fullest protection to the public, and also relieved commerce of unnecessary delay and expense—a most important consideration. Passengers and crews coming from plague-infected ports should

none on any account be released until their temperatures had been taken, no matter how long they might have been in transit; and it was important to watch those whose temperatures were being taken, as they frequently took out the instrument, kept their mouths open or otherwise interfered with the proper registration.

MALIGNANT DISEASES OF THE FEMALE GENITALIA.

Dr. THOMAS OLIVER, M.A., M.D., F.R.C.P., in a recent lecture delivered at the Royal Infirmary, Newcastle-upon-Tyne, dealt in a comprehensive and interesting form with the somewhat important question of Malignant Diseases of the Female Genitalia. We endeavour to give the essential remarks from a detailed account in the columns of the *British Medical Journal*.

MALIGNANT DISEASE OF THE VULVA.

This might be epithelioma or sarcoma—ulceration or nodular growths. Once the nodule lost its epithelial covering, it went on ulcerating, the margin of the ulcer being thick and hard. Patients suffered more distress perhaps from this ailment than from internal cancer. They became quickly worn out by mental anxiety and depression, and by the constant local irritation, with loss of sleep and loss of appetite.

Differential diagnosis.—*Caruncle* of the meatus urinarius:—Usually of a bright red colour, very tender, with no hardened base, and invariably projecting through the meatus urinarius or involving the orifice.

Hard chancre.—The ulceration did not keep spreading, and was followed, sooner or later, by the appearance of syphilitic rash.

Soft venereal sore.—Although spreading often rapidly, had no hard base, and the lymphatic glands in the groin were apt to suppurate.

Prognosis.—Bad: surgical treatment did not apparently prolong life or relieve symptoms, yet it was the only treatment available.

MALIGNANT DISEASE OF THE VAGINA.

Sometimes primary, but usually secondary from extension from the uterus, bladder or rectum: if primary, usually epithelioma. The author was convinced that in some cases the disease, if not caused, was certainly aggravated, by the friction of a pessary that had been worn too long, which thus acted similarly to a foul pipe producing epithelioma of the lip. Sarcoma might also occur. The symptoms usually complained of were hæmorrhage, pain on locomotion and coition, and the presence of rather a purulent discharge, which was often offensive.

Treatment.—Since the disease originated in very soft tissue, it was extremely prone to spread rapidly by the lymphatics to the pelvis, admitting thus of little but palliative treatment. Any surgical operation would be so severe, meaning encroachment upon either the bladder or the rectum, that the result would be probably worse than the disease.

MALIGNANT DISEASE OF THE UTERUS.

In this connection it was well not only to remember that the morbid material was spread by the lymphatics, but that cancer also spread by creeping outwards to the surrounding tissues. This extension was met by a reactionary inflammation of those tissues, whereby a barrier was raised, owing to infiltration of the tissues by small cells. This caused the hardness felt around a malignant growth. The cancer might first attack the cervix, when examination by the finger revealed a small hard nodule or two underneath the free end of the cervix, or perhaps the epithelium had disappeared and there was an ulcer; it then spread inwards and upwards or outwards towards the vagina. Usually ulceration and growth went on together, accompanied by considerable hardening and thickening around the margins, or the growth might sprout, producing a "cauliflower excrescence," filling up the vagina, and attached by its pedicle usually to the posterior lip of the os. The surface was irregular, brittle and disposed to break down—a dirty gray, with an offensive thin and purulent discharge. When malignant disease of the cervix assumed the ulcerative form, the excavation tended to spread in the direction of the bladder or the rectum, and might ulcerate into either and cause a fistula. When cancer commenced within the cervical canal, it proceeded very stealthily and remained undetected for some time. The existence of irregular ulceration extending up the cervical canal, accompanied by hardness in and around the cervix, was characteristic of carcinoma. In cancer of the body of the uterus the disease arose either in the ordinary epithelial cells lining the endometrium, or in those of the tubular glands: if in the latter, it constituted, "adenoma malignum." Within the uterus there were usually papillary growths, not unlike numerous small polypi. Although a reactive inflammation was induced, yet the growth extended outwards beyond the limits of the womb, and caused secondary nodules in the cellular tissue between it and the rectum or the bladder, in the peritoneum, the broad ligaments, lumbar glands or the ovaries. The cause of cancer was still beyond our ken. It was certainly a local disease at first as shown by the success which followed early extirpation. Experiments seemed to indicate that irritation of epithelial cells was a pre-requisite. No age was exempted if malignant disease of the ovaries were included with that of the womb; yet it tended more to develop in married women, especially before or even after the climacteric. Although there had been an increase of cancer in the United Kingdom, its hereditaryness had probably been exaggerated. Injury was supposed to play a part in causation; but it was difficult to see why it should make the cells of a part assume pathological tendencies that were entirely foreign to them. It had been mentioned that excessive marital intercourse with a torn cervix with everted lips tended to cancer; but the author knew of no facts to confirm the statement.

Diagnosis.—In most cases the malady had been in existence long before the patient consulted a doctor. Pain and bleeding at irregular intervals, with a thin, watery, offensive discharge, were characteristic; but no one symptom was pathognomonic. Much importance should be

attached to the recurrence of bleeding in women who had passed the climacteric, and who had ceased to menstruate for a year or more : this was almost always due to malignant disease. Do not be deceived with a negative result by examination *per vaginam* : dilate the cervix and curette, and in all probability some soft grayish-looking material would be removed, which on microscopical examination would be found to be sarcoma or malignant adenoma. The author here related the history of some cases where complete removal of the uterus after early detection of cancer, in women after the climacteric, resulted in complete cure, the patients having several years of subsequent active life. In advancing cases, cachexia became pronounced and loss of flesh apparent : mental depression and the fear from the knowledge of the hopelessness of her case soon showed themselves in the patient. Many cases died between six and eighteen months : most within the year after the disease was detected. There was little difficulty as a rule in diagnosing malignant disease of the cervix : it was not so easy when the body was attacked. In differentiating from polypus, a healthy os with ability to insert the finger through it and sweep round the presenting growth should help to settle the diagnosis ; but in most cases only the history of the case and dilatation of the cervix with exploration of the interior of the uterus would make the diagnosis complete.

COMPLICATIONS.

Fibroma.—It was maintained by some physicians that under certain circumstances a fibroma of the uterus might take on malignant action : the denial of this was as stoutly made. The author had a faint recollection that he had seen this transformation occur, but hesitated to express himself absolutely. He had certainly observed a previously healthy os uteri, which was dilating gradually and normally to allow a polypus to come through, all at once become malignant, and the patient die of cancer very rapidly : an inverted uterus, also, after protruding through the vagina for a lengthened period, might become malignant.

Pregnancy.—Cancer in the early stage was no barrier to pregnancy. It was formerly held that pregnancy arrested cancer. The author did not believe this ; for, as the uterus increased in size during pregnancy, there was a greater chance of the disease becoming more active. If pregnancy did occur, there was the all-important question, What should be done ? The author always recommended, other things being favourable, removal of the uterus with its contents entire. He had no hesitation in saying that our duty was to save, if possible, the mother, for who could predict, if the pregnancy was allowed to go on, that a living child could or would be born ? Was it likely that the child could be healthy where there was malignant ulceration of the cervix and septic absorption ? or could we even hold out the prospect that the mother, unless thus treated, could live to the end of term.

TREATMENT.

For inoperable cases.—Where the disease was so far advanced that the uterus was fixed and the growth had

extended beyond the limits of the womb, where hæmorrhage was profuse and the discharges foul, scraping the ulcer and breaking down the little masses and the application of a fairly strong solution of zinc chloride would relieve symptoms and make the patient for the time being more comfortable. The author had never seen any good results follow the internal administration of Olan turpentine, as recommended by Dr. CLAY of Birmingham, nor by the injection of solutions of aniline or of alcohol into the diseased part or the neighbourhood. He had been giving Dr. COLLEY'S (New York) method of coccal injections for inoperable malignant disease a trial for some time. The cases for which it was most suited were, according to Dr. COLLEY, inoperable sarcomata, and therefore carcinoma of the cervix, which was one of the most frequent of the malignant diseases, scarcely came under the same category from the therapeutic point of view. The author had tried it in cases, however, of inoperable sarcoma of the uterus, where the disease was confirmed by a microscopical examination of the scrapings. He had never known it cure a case. In some instances its use was followed by diminution of hæmorrhage ; but in many others high temperature with rigor and severe headache followed the injections, that it became absolutely necessary to discontinue them. From the internal administration and local application of arsenic he had seen no benefit, nor had thyroid extract done any good.

For operable cases.—cases where the disease was limited to a very small part of the cervix, or, if in the uterus, where the womb was freely moveable, with no indication in either instance of the disease having extended beyond the organ itself, were those suitable for operation. When limited to the exposed part of the cervix, the treatment lay between amputation of the cervix and total extirpation of the uterus *per vaginam*. He had seen amputation of the cervix succeed in effecting an absolute cure ; but, all things considered, the author was disposed to recommend total extirpation as against amputation : and yet, even when this operation had been carried out in the early stage, the disease might return a few years afterwards. A striking illustration of this concluded Dr. OLIVER'S address.

Diabetes Mellitus.

CONTRARY to what one might expect among a population whose diet is composed largely of articles that contain a large amount of starch, diabetes mellitus is a very rare disease in Japan. Instead of putting his patients who suffer from this malady on a meat diet, which is poor in quality and dear in price here, Dr. BANKE gives them beans almost exclusively, the *Phaseolus radicans*. Opium and salicylate of soda are the only drugs he gives, and on this plan of treatment his patients usually rapidly recover. An unsuppressible condition of the nervous system of the Japanese as a race may account for their partial exemption from this disease.

COMMENTS AND NEWS.

MODERN IDEAS ABOUT VACCINATION.

Dr. F. S. FIELDER, (*New York Medical News*) notes these points to be emphasized:—

1. Complete natural immunity to vaccination is practically unknown.

2. In primary cases, delayed vesiculation, raspberry excrescence, and abortive course, mean poor virus.

3. Among the complications, there is now no danger of transmitting syphilis or tuberculosis. Other infections, such as erysipelas, cellulitis, septicæmia, etc., are more rare as methods of preparing virus improve, and more care is used at the time of vaccination and in the subsequent management of the case.

4. During the second week of vaccinia, a large painful areola may be considered normal if it be bright red, and if the vesicle be of typical appearance. If the vesicle be irregular, filled with greenish pus, and the areola be of a dark livid, purplish hue, the case is one of mixed infection.

5. Generalised vaccinia, aside from cases in which the eruption is spread by auto-inoculation, is rare. Cases of doubtful diagnosis may be tested by the inoculation of lymph from one of the vesicles into another subject. If it be true generalised vaccinia, a localised vaccinia will develop in the inoculated person.

6. The destruction of the vaccine vesicle does not interfere with the immunity conferred by the vaccination.

7. Immunity is acquired about the time the areola is at its height—eight to ten days after vaccination. If small-pox appears at this time, it will be mild. If the eruption appears before the vaccination has reached the areolar stage, the disease will not be much modified by the vaccination.

8. Vaccination of the pregnant woman does not protect her child.

9. The foetus *in utero* may have small-pox, if the mother has it, and may be born with an active rash or with healed scars. A child born while the mother has small-pox is not only not protected, but has been exposed *in utero*, and will probably develop the disease before there is time to secure protection by vaccination.

10. The duration of immunity to small-pox which is conferred by vaccination is extremely variable, and in the presence of an epidemic, the fact of recent successful vaccination is only presumptive evidence of immunity. Of persons successfully vaccinated within five years, very few will contract the disease; but some will, though they will probably have varioloid instead of severe small-pox.

11. The duration of immunity to revaccination which is conferred by vaccination is also extremely variable, and is probably short (two years or under) in a larger proportion of cases than has been supposed.

12. The protective power of vaccination is in direct proportion to its excellence and completeness as shown by the number and quality of the resulting scars. Of the two elements which enter into this protective value, quality of scars is more important than number.

13. While the quality of a scar is a false indicator of its protective power against small-pox, it is an unwarrantable guide in deciding whether the individual is susceptible to revaccination.

14. A person who is immune to small-pox can often be successfully revaccinated.

15. Revaccination protects against small-pox as fully as an attack of the disease protects against a subsequent attack.

16. A person who has been successfully revaccinated is much less likely to contract or to die of small-pox than a person who has been vaccinated only once. The more successful vaccinations one has had at different times, the more certain is his immunity, and the better his chance of recovery if he does contract the disease.

17. Revaccination, therefore, should be considered as important as primary vaccination, and should be just as systematically practised.

18. Primary vaccination should be performed in infancy; revaccination at school age. In the presence of an epidemic, however, revaccination should be performed, even though the primary vaccination was of comparatively recent date.

19. The eruption in revaccination is more likely to follow the type of vaccinoid than that of typical vaccinia.

20. Vaccinoid protects if the virus used is of high-grade efficiency. If the virus is poor, only partial immunity is conferred.

21. All vaccine virus should be subjected to rigid physiological tests before issuance. It should be retested monthly, so long as it is on sale. The virus from each animal should be kept by itself and numbered. It should be known by this number when issued, so that it can be called in if retests show that its efficiency has expired.

22. Vaccination should be performed under aseptic precautions.

23. It is not sufficient merely to smear the virus upon the scarified areas. It must be thoroughly rubbed or scratched or pricked in.

24. Vaccination shields often do more harm than good.

25. Cases of infected vaccination should be cared for by the physician, and not by the mother.

26. Remember that the destruction of the vesicle does not impair the protective power of vaccination, and if signs of mixed infection appear, open the vesicle, cleanse the wound, and treat it upon general surgical principles.

PROSTATITIS.

* DR. E. J. HOGAN contributes to the columns of the *Medical Brief* an article on Prostatitis, from which we take the essentials. Both acute and chronic prostatitis presented themselves frequently to the general practitioner. The acute form occurred in young men, and was generally due to urethral inflammation; in older men it was generally primary, exposure and excesses being prone to set up a congestion here; however, secondary prostatitis was occasionally met with in old men, but primary prostatitis was rare in young men. The prostatitis might be follicular or diffuse: in the former the main symptoms were frequency of micturition, tenderness to pressure, and uncomfortable feeling of fulness and heat of the perineum. More severe symptoms indicated diffuse prostatitis: defecation might be very painful, and urination partially, if not entirely, interfered with. Both forms readily responded to treatment, particularly when taken in hand promptly.

Treatment.—In the follicular variety, Sanmetto in teaspoonful doses every three hours internally and hot applications externally; in the diffuse variety, catheterisation and hot soap-suds enemas, and, if necessary, suppository of morphia and atropia: sanmetto internally and hot applications

several times a day: if suppurative intervene, a perineal incision with free drainage. In chronic prostatitis treatment must be persistent: saunnetto intermittently for three weeks at a time, acetate of potash being given in the intermission in small doses: turpentine: stupes or blister: hot sitz bath morning and evening: gradual dilatation of the prostatic urethra by graduated catheters. Hypertrophied prostate, found generally in old men, is worse when the middle lobe is affected, a slight enlargement of which might possibly cut off the vesical orifice of the urethra. The early symptoms of this were frequency of micturition and loss of bladder force. Treatment should be palliative: saunnetto and benzoate of soda internally: dilatation of prostatic urethra by sounds, and every 24 hours or less removal of residuary urine to prevent decomposition: this made life bearable. As to drastic measures, castration appeared brutal: cauterisation was only temporarily beneficial, and the formation of cicatrix would probably make subsequent condition most unsatisfactory, and many hypertrophies were of such a nature and shape that the cautery would be wholly inadequate. Prostatectomy was a very serious matter, mortality being very high, with doubtful results. On the whole, a perineal fistula appeared to the author as the most satisfactory method of procedure in such cases.

INDIAN PRACTITIONERS AND MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

DR. SARAT K. MULLICK, of London, writes to the *British Medical Journal* as follows:—At the meeting of the Metropolitan Branch the members, by rejecting my motion, have perhaps unwittingly lent their influence to injustice and race supremacy in India as regards their Indian fellow-practitioners. By the draft constitution, Indian doctors were allowed the rights of "complimentary members"—that is, they are not allowed to vote or become subscribing members of the Indian branches. I moved that graduates and licentiates of Indian universities be made eligible for regular membership. This resolution was lost by a majority of only one vote. This result was no doubt due to the plea "that only one person (meaning myself) in the room probably knew anything about Indian practice." I agree with Dr. Major GARNWOOD that there were some who "by no stretch of imagination could possibly be admitted as members." But the graduates and licentiates for whom I appeal are those who have had to enter a Government medical college under the direct supervision of one of the five chief universities in India. Each of these colleges is staffed by members of the Indian Medical Service, who, it is needless to say, are graduates or licentiates of Great Britain. The students have to undergo a regular course of study and pass recognised examinations, extending over many years, before they can get their degree or diploma. They are recognised, so far as their lectures are concerned, by the General Medical Council of Great Britain as qualifying for the medical bodies in Great Britain, and in the cases of the Royal Colleges, the Indian graduates are exempted from all but the final examination. So that an Indian M.B. can get his registrable qualification by passing the final conjoint examination immediately on arrival in Great Britain. It is true the Indian diploma, like the Colonial, does not qualify for the *Register*; but I am convinced that a scheme of Imperial registration is only a matter of time, for it is simply an anachronism not to recognise with the existence of Empire its responsibilities.

My motion was made on wider grounds than the simple privilege of becoming a member of the British Medical

Association. Whenever an Indian matter comes before the Association, it is all but shelved by referring it to the Indian branches. Under the present rules the branches are composed largely of the army element, and the central body does not get the opinion of the vast majority of the profession in India. The inevitable result is that the British Medical Association becomes the tool of a handful of army doctors in India, and thus, instead of doing justice, unwittingly tyrannises over the natives of India. I take it that Mr. VICTOR HOSLEY sounded the true note when he said that the aim of the Constitution Committee was to make the Association a power in the land, safeguarding our interest by securing and enforcing justice to medical men throughout the Empire. I appeal to that spirit of the profession. No reason has been shown that Indian qualified doctors are unworthy of membership. I go further and say that their inclusion would increase the prestige and purpose of the Association by spreading that *esprit de corps* which is such a potent factor in keeping our profession pure.

TERRIFIC CONSEQUENCES.

THE *Medical Brief* says:—Will the whole nation become morphine eaters? If so, will not the doctor be the cause of it?

These are terrible questions to ask, but the answer is equally terrible. There is small doubt that the profession is responsible for the majority of cases of morphine habit. We do not believe that the doctor begins to realise the harm he does. He simply does not think beyond the present moment. But, however honest a man's intentions, they do not alter facts, nor can the doctor shift his responsibility.

He visits a patient enfeebled by suffering. The judgment and will of the patient are impaired, his patience exhausted, and he demands relief. But the doctor is well and has his wife about him. He can and should show the firmness and consideration which move parents in managing refractory children. Sick people are often like naughty children, and while the physician may strengthen them by a wise sympathy, he must not weaken them by indulgence.

Doctors should use bromides, aromatics, diffusible stimulants, hot applications, rubefacients, more generally for the relief of pain. Morphia is really a curse. Look about you and see the terrific consequences of a habit, all the time growing 'as neurosis becomes increasingly common. The man or woman, conscious of vague, chronic discomfort and weariness, to whom the mere effort to live is a burden, the trials and responsibilities of life odious, finding that a small dose of morphia makes him or her warm, comfortable, easy in mind, equipped with fictitious strength and ability, is almost certain to become a habitue.

For when the morphia wears off, the individual's former condition is aggravated, his misery doubled by contrast. It is like coming from a warm, brilliantly lighted room into the dark, rainy street. The person shivers and hastens to blunt his consciousness of gloomy reality with another dose, and so it goes from bad to worse until he is a wreck.

There is no royal road to health and vigor for the neurotic. He can only be built up by painstaking, persevering efforts to live right. The doctor should teach such patients that they are not up to the standard in the matter of heredity, must avoid reckless living, and be faithful in the observance of hygienic laws. But above all, the doctor must avoid fattiating them into the hypodermic method of conjuring up good-feeling and well-being.

If the doctor uses morphia during an illness, he is usually dismissed before convalescence is thoroughly established, and so does not have time to wean his patient from the drug, but leaves him in just the condition of mind and body to become confirmed in the habit.

Morphia is the most objectionable preparation of opium, because of the facility with which it may be obtained and used. When you do employ it, try to disguise the fact from the patient.

THE FINE OLD IRISH SURGEON.

THERE was a fine old Irish surgeon, from Erin's emerald isle.

Who dashed around in a spanking double-team in the biggest kind of style.

His reputation as an operator extended far and wide,

And patients by the hundred flocked to see him in an ever swelling tide—

This fine old Irish surgeon, from Erin's emerald isle.

This fine old Irish surgeon was a man of wondrous guile,

Who by the practice of surgery and sundry other arts had managed to accumulate quite a respectable pile;

He had a perfect mania for operating, and a fee he never missed;

For sufficient pecuniary consideration he'd tackle anything on God's green earth, from a bone felon to a four-hundred-pound firmly adherent multilocular ovarian cyst—

This fine old Irish surgeon from Erin's emerald isle.

This fine old Irish surgeon, his leisure to beguile,

Would tell the darndest, toughest, most highly-improbable, Munchausen-like surgical yarns and never crack a smile;

He didn't care a continental for his patient's souls—that was none of his business; for their bodies he cared still less,

And although most of his patients died on the operating table, and the others immediately after being removed, he'd claim with more truth than poetry that every operation was a "bloody, big success."

This fine old Irish surgeon, from Erin's emerald isle.

One day there came a woman whose baby, she related,

In consequence of a grain of corn firmly impacted in the trachea, was well nigh asphyxiated.

Och, Doctor, dear, its dead, he is, as sure as ye's are born.

Unless be the holy mother ye's can extricate the murderin' grain of corn.

Ye's fine old Irish surgeon, from Erin's emerald isle.

Be atty, now, the doctor said, and never ye's moind a whinnet;

A sample of me wondrous skill I'll show ye's in a minit,—

Tracheotomy, I'll perform the sixteenth to-day (moind that now),

And be the holy powers, while ye wait, that same poky little grain of corn I'll quickly bring away,

Said this fine old Irish surgeon, in his grandiloquent style.

The baby then he quickly took,—now in *articulo mortis*,
And laid it on the operating table; then just as quickly brought his

Instruments, and cutting down, through one tissue, then another, he did not stop till he had opened the trachea *secundum artem*, and with a pair of Gaoon's latest improved alligator forceps seized the offending foreign body and hastened in triumph to show it the anxious mother,

This fine old Irish surgeon from Erin's emerald isle.

Och, madam, dear, here's the grain of corn,—I got it, you just bet!

Faith, it's meself's the man to do the thing to which me hand is set!

The baby? Oh, the baby.—(I think it was, ye said!)

I got the murderin' grain of corn, I did,—but the baby, marm, is dead,

Said this fine old Irish surgeon, with his most complaisant smile.—BY F. E. DANIEL, M. D., in *Texas Medical Journal*.

THE BACHELOR DOCTOR.

THE *Medical Brief* says:—No doctor should be a bachelor by choice, nor should he allow circumstances to keep him one very long. The risks and responsibilities he assumes in entering the married estate are more than made up to him by the sympathy, counsel and inspiration of a good, sensible wife. The hostages which a man gives fortune are the best stimulus he could have to keep him sober, steady, industrious, to make him ambitious and progressive. Abstract ideas of duty lack the magnetism of family affection. A man must be strong, loyal, courageous, who feels the dependence of near and dear ones.

An unmarried doctor is not in a position to understand the family life and ties. He knows little about children, and is apt to be impatient and tactless with them. If he had children of his own, he would know how to approach them, how to get their confidence, and wise management is very essential to successful treatment in diseases of children.

The married physician inspires greater confidence in the laity. They expect him to understand, sympathize, and make allowances through the knowledge gained in his personal experience. There is nothing like the touch of Nature, the fellow feeling, to bring about unity of sentiment, charity and forbearance.

* The doctor sees so much of the ugly side of human nature; he comes in contact with men and women when the mask is off, self-control and self-restraint lost, selfishness and egotism in the ascendancy. Therefore, he, more than other people, needs the counterbalancing influence of healthy, wholesome home life. The bachelor doctor is apt to become cynical, callous, a disbeliever in humanity. Men and women seem poor stuff to him, full of pains and aches, always grumbling and complaining. He forgets that it is only the weak world that is like this. Outside of his daily rounds, there is joyous, busy life, which should be in his home, ready to console and cheer him after a hard day's work amid the depressing influences of sickness.

The unmarried doctor is less conscientious in his work, for conscience is largely based on the capacity for affection. To be capable of loving, we must have objects to arouse and exercise our affections. Love begins at home, and gradually embraces the world.

If you would be a good doctor, be a good man first, and a good man is always a good husband and father. The schooling of the family life will teach a man to rule his own spirit when all other guides and checks fail.

ANTI-MALARIAL PHILOSOPHY.

THE new learning in regard to the origin and dissemination of malaria will disparage many of the ancient preventives. Professor CELLI of Rome, in a recent summary of the matter, alludes to the influence of trees, such as the pine and eucalyptus, and dismisses their antimalarial powers by saying that trees afford shelter for the insects of the air and are a danger. Now that the rôle of the mosquito is thoroughly understood in the propagation of malaria, on the other hand, some herbaceous plants, mostly of the composite kind, and from which are prepared the so-called insecticide powders, are effective in killing larvae in water and mosquitoes in the air, and it is suggested that these should be cultivated on a large scale; and it might be possible that a malarial swamp could by this means be made to free itself from the malaria by which it is infected. As a means of preventing infection being conveyed by malaria, the protection of the house by netting answers very well. For protecting the bodies of those who have to remain in the open air during the evening and night, it is found that soaps, pomades, and perfumes are of no use. Mechanical contrivances, such as veils and gloves, must be used. CELLI seems to think that he has discovered some cases of immunity, though he professes that he does not yet know the means by which this immunity is secured. He has found that the daily administration of half a gramme of eucainin makes a man capable of bearing with impunity the injection of a large quantity of very virulent malarial blood. There is no doubt that the vast interest awakened in malaria by the new doctrines of its origin will lead to very definite results in its prevention, and it may be reasonably expected that Italy will very shortly be entirely free from this scourge.

PARKES MEMORIAL PRIZE.

THE Parkes Memorial Prize, consisting of 75 guineas and a bronze medal, is awarded every third year to the writer of the best essay on a subject connected with hygiene. The competition is open to the medical officers of the Army, Navy and Indian services of executive rank on full pay, with the exception of the assistant professors of the Army Medical School during their term of office.

The subject for the last competition was Venereal Diseases in the British and Indian Armies: their Prevalence and Prevention. Surgeon-General McD. Coffe, C.B., Colonel K. McLeod, and Major R. H. Firth acted as assessors, and awarded the prize to the essay bearing the motto *Quis quid peccat in se punitur*. The writer of the successful essay was Captain Howell, Royal Army Medical Corps.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a special meeting of the President and Fellows of the Royal College of Surgeons in Ireland, held on Monday, April 19th, Messrs. R. Lane Joynt and P. W. Maxwell were elected to the vacancies made in the Council by the resignation of Messrs. Dentwaine and Conway Dwyer, who became candidates for the Chair of Surgery in the College, which had been occupied for over a quarter of a century by the late Sir William Stokes.

The election for this Professorship took place on Thursday, April 18th, when the Council selected Mr. Conway Dwyer to the post. The new Professor is a distinguished graduate of Dublin University, and like his colleague, Sir William Stokes, in the dual Chair of Surgery in the College, he is Surgeon to Jervis Street Hospital.

HOW DOCTORS SHOULD LIVE.

A STUDY of the habits of physicians leads to the belief that if their lives are short, it is their own fault. If they followed certain rules, there is no reason why they should not live as long as other people. These rules may be briefly summed up as follows:—

1. Do not work beyond your strength. The judicious worker can accomplish more than the spasmodic worker.
2. When your practice becomes too large, turn over the most unprofitable part of it to younger and less busy men. As soon as possible decline all night work.
3. Avoid intemperance, be home at meal times, and retire early.

4. Save a part of every year's income, so that you may have something to fall back on in sickness or old age.
5. Take at least a half day's vacation once a week, and a month once a year.

EXAMINATIONS FOR DIPLOMAS OF L.R.C.P. AND S., EDINBURGH.

THE following students from India have passed the examinations for the diplomas of L.R.C.P. and S., Edinburgh:—
First Examination—Dennis Oregan; MacOabe Dallas, of Assam; Daniel Collin MacNair of Madras.

Second Examination—Jessie Ellinor George of Calcutta; Thomas Albert Mendes of Calcutta.

Final—John Blunt Swinden of Calcutta; Albert Ouff Lopez of Madras; Ganesh Dinkar Ukide of Poona.

SHORT ITEMS AND PERSONALITIES.

Captain W. W. Olemesha, M.B., I.M.S., is appointed to the officiating medical charge of the 6th Bengal Cavalry; Captain H. Ainsworth, M.B., I.M.S., to the officiating medical charge of the 8th Bengal Lancers; Lieutenant H. Innes, I. M. S., to the officiating medical charge of the Bengal Sappers and Miners; and Captain R. P. Wilson, I.M.S., to the officiating medical charge of the 9th Gurkha Rifles.

Surgeon Captain MacOabe Dallas has been promoted to the rank of Major, and it has been decided that the period passed on the Unattached List by medical officers of Volunteers may be reckoned towards the qualifying service required for promotion.

Major J. O. Haslett, R.A.M.C., attached to Station Hospital, Calcutta, will assume medical charge of troops proceeding to England in S. S. *Hardinge*, sailing from Bombay about the end of the month, on completion of which he returns to India.

His Honor Sir John Woodburn, Lieutenant-Governor of Bengal, has graciously accepted the position of Patron of the Imperial Anglo-Indian Association, of which Dr. James R. Wallace, M.D., F.R.C.S., is the newly elected President.

Dr. C. Banks, Superintendent of Emigration and Protector of Emigrants, Calcutta, is appointed to act as Health Officer of the Port of Calcutta, in addition to his own duties, during the absence, on leave, of Dr. J. L. Hendley.

Third Class Assistant Surgeon F. W. Mathews, doing duty at the Station Hospital, Calcutta, will do duty on board the hospital ship *Qualitor*, vice Assistant Surgeon Bowder, detained at Calcutta, pending further orders.

The following is a revised list of candidates who have passed the Second M. B. Examination of 1901:—Jnanendranath Kenjilal, Dwijendranath Maitra, and Guruprasad Mitra, all of the Medical College, Calcutta.

Lieutenant-Colonels Hall and Duke, Indian Medical Service, have been granted temporary rank of Colonel whilst officiating as Principal Medical Officer of Lahore and Presidency Districts.

About twenty vacancies will probably be offered for competition at the forthcoming examination for the recruitment of the Indian Medical Service.

Colonel Lukis, I. M. S., has been unanimously elected Worshipful Master of the Lodge Himalayan Brotherhood, at Simla, for the current year.

Ten days' temporary leave is granted to Lieutenant W. S. Willmore, I.M.S., No. 4, Native General Hospital, Calcutta, from 22nd May 1904.

Third Class Assistant Surgeon A. G. Bowder, doing duty on board the hospital ship *Qualitor*, will do duty at the Station Hospital, Calcutta, pending further orders.

Current Medical Literature.

MEDICINE.

Tuberculous Peritonitis in Children.

CASSEL (*Allg. Med. Central-Zeit.*) has seen during the last three years 18 cases of tuberculous peritonitis in children under 10 years. This is only 0.12 per cent. of the total cases of tuberculous children treated during the same period, and the disease is, therefore, comparatively rare. Three of the patients were only three to eight months old. Of the 18 patients, ten were boys and eight girls. The final result was unknown in five cases. In three cases death occurred before an operation was performed. Laparotomy was performed in seven cases; in two of these death occurred from asthenia shortly after the operation, and in one a few weeks later from acute miliary tuberculosis. Of the remaining four children, one was still in hospital after the operation, and three were cured. Of these, one was a boy of eight at the time of the operation, he is now 12 years old and healthy. The second child was a girl, aged nine, who had a strong family history of tubercle, and had previously suffered from tuberculous disease of the elbow. Tuberculous peritonitis then developed, with an encapsuled effusion on the left side. The girl is now, four years after the operation, quite well. The third was a boy, aged 2½, whose father was phthisical. The tuberculous peritonitis healed well, though the tracks of the sutures in the abdominal wall became infected and produced a large tuberculous ulcer of the skin. Now, three years later, the boy is in good health. These results are interesting, since ISRAEL states that laparotomy is not often successful in children under ten years of age. In a boy, aged eight, whose parents refused an operation, spontaneous recovery took place within 18 months; and in a girl, aged nine, whose condition was apparently desperate, the hectic fever ceased, and spontaneous recovery eventually followed. The eighteenth case is still under observation. The writer believes that laparotomy should be performed in all cases in which, in spite of dieting, fresh air, and suitable treatment, hectic fever and progressive emaciation persist. When the course is apyretic, an operation may be postponed.

In the diagnosis, the presence of abdominal tumours, which may vary in size from that of a walnut to that of a fetal head, is most important. Over these lumps there is dullness on percussion. They consist of tuberculous masses in the omentum, or on the serous coat of the intestines. Sometimes cysts, filled with clear fluid or cheesy material, are formed between the adherent coils of intestine. The tumours are never caused by enlarged mesenteric glands, which are out of reach of palpation. If the abdominal wall is rigid, an anæsthetic may be required for their detection. In such cases a rectal examination may reveal nodules in DOUGLAS' pouch. Tuberculous peritonitis should be distinguished from the rare form of simple serous peritonitis which occurs chiefly after injury, measles, and scarlet fever. In this there is much ascites, the abdomen is uniformly distended, but there are no tumours, no emaciation, and usually no pyrexia. Recovery always takes place. The prognosis of tuberculous peritonitis depends largely on the degree of pyrexia; if there is continued high fever a death is usually imminent.

Causes and Cure of Insomnia.

SIR JAMES SAWYER (*British Medical Journal*) states that sleep is an appetite; an appetite being, according to BAIR, a craving produced by the recurring wants and necessities of our bodily or organic life. The two striking characteristics of sleep are its periodic recurrence and its organic necessity. As to the physiology of sleep, there are two vital changes which take place in this condition. The one is some intrinsic change in those ultimate tissue elements of the brain which are concerned in consciousness; the other is a diminished supply of blood to the brain, especially to the blood-vessels of the cortex. The etiology of insomnia may be considered under two heads—"secondary" and "intrinsic" insomnia. The former may be produced by various evident causes, viz., pain, high fever, frequent coughing, dyspepsia, etc. Sleeplessness of this nature may be controlled by hypnotics or soporifics, or by measures which

combat the cause of the insomnia. "Intrinsic" insomnia is said to exist when no objective or obvious physical cause can be discovered. It may be divided into three groups: (1) psychic, (2) toxic, and (3) senile. The subjects of psychic insomnia are generally men, and almost invariably those possessed of the nervous temperament. This state of sleeplessness may follow a severe mental shock, or, more commonly, it may be subsequent to prolonged mental strain caused by over-study, or financial anxiety, or arduous literary composition. The cause, whatever it may have been, seems sufficient to rouse a given group of cerebral cells into persistent activity. The arterioles of the brain have no longer that contractility, without which sleep is impossible. In these cases, probably the initial fault is unnatural excitation of the cerebral cells. In the toxic variety the cause acts primarily upon the blood-vessels of the brain, giving rise to some degree of arterial hyperæmia. The poisons to be considered here are tobacco, alcohol, tea and coffee, and the poisons generated by the gouty diathesis. As to senile insomnia, a person may truthfully be said to be as old as his arteries, not as old as his years. The senile vessels are less elastic and less contractile than normal, and their weakened walls often lead to their permanent dilatation. The smaller cerebral arteries are physically unable to adapt themselves completely to that condition of relative arterial anæmia which is the essence of healthy sleep.

Etiology of Scarlet Fever.

DR. W. J. OLASE asserts that the micro-organism discovered by BAGINSKY and SOMMERFELD in the throat secretions and blood of scarlet fever patients is identical with the *diplococcus scarlatina* discovered by him in 1899. He gives those authors' description of the morphology of their streptococcus, and compares it with the morphology of his own organism, the only essential difference being that BAGINSKY and SOMMERFELD speak of it as a streptococcus when growing on agar, which he denies to be the case. He then considers the evidence in favour of the view that the *diplococcus scarlatina* is the cause of scarlet fever, under the following heads:—

1. Evidence showing that the *diplococcus scarlatina* is a germ not heretofore described.
2. Evidence showing that it is constantly present in scarlet fever.
3. Evidence showing that it is a pathogenic micro-organism.
4. Evidence showing that scarlet fever can be reproduced in animals by the *diplococcus scarlatina*.
5. Evidence showing that the pathologic change in the organs caused by the *diplococcus scarlatina* resemble those of scarlet fever.
6. Evidence showing that the disease produced through its agency is of a contagious nature.
7. Influence of the blood of scarlet fever patients on the activity of the germ.
8. Finding of the *diplococcus scarlatina* in the throat secretions of patients with scarlatinal sore-throat, a further proof of its specific character.
9. Its growth in milk without affecting this medium, a fact in favour of its being the cause of scarlet fever.
10. The finding of the *diplococcus scarlatina* in cases of surgical scarlet fever demonstrates its diagnostic value.

Exophthalmic Goitre of Syphilitic Origin.

R. ABRAHAM, after reviewing several cases, makes the following comments:—(1) The occurrence of exophthalmic goitre in three undoubted syphilitics cannot be regarded as either an accident or coincident. (2) The old dictum which relegates the origin of exophthalmic goitre to a perturbation or disturbance in the cervical sympathetic system should receive attention only after the existence of syphilis, present or past, is absolutely excluded. (3) Those cases which yield to mercury or iodides should be favourably looked upon as being of syphilitic origin. (4) Cases in which all the orthodox remedies fail should be put to the test of specific treatment. (5) Cases which are characterised by gangrene of the extremities, various pigmentations of the skin, nocturnal headaches, or other suspicious lentio symptoms, should receive the benefit of specific remedies.—*New York Med. Rec.*

SURGERY.**Urethral Fistula.**

UNTERBERGER and JAHN (*Berl. wöchtl. Chirurg.*) have published two memoirs on the subject, as important as the collection of papers on urachal cysts noted last year (*Epfomé*, vol. 1, 1899, para. 510). In the original case published by UNTERBERGER, the symptoms of fistula developed through obstruction to the bladder caused by retroversion and partial incarceration of the gravid uterus. The patient, aged 23, was sent into hospital as a case of "ovarian cysts ruptured through the umbilicus." A clear yellow fluid had run away from the navel for three weeks. A cystic tumour extended as high as the umbilicus; a tense, elastic swelling filled the pelvis, pressing down very low; the cervix could not be reached; the vagina showed the violaceous discoloration of pregnancy; an aperture, very minute, was detected in the umbilical cervix, and fluid which proved to be urine flowed from it. For a fortnight no urine had passed by the urethra. Into that canal UNTERBERGER passed a long curved metallic catheter. Nearly two pints of urine came away mixed with pus, the cystic tumour disappearing, and urine ceased to flow through the navel. The pelvis was still filled with the elastic mass. The patient was kept at rest and carefully catheterised, the umbilicus became dry, as no more urine escaped from it, and at the end of about three weeks the uterus reduced itself. The sound was passed for diagnostic purposes; next day contractions set in, and four days afterwards the patient was delivered of a five months' child. A fortnight after labour the uterus was found retroverted and retroflexed. The original displacement was traced to a fall ten feet on to a floor during the first month of the same pregnancy. On discharge, two months after delivery, the catheter could be passed almost to the umbilicus. The urine was clear and passed voluntarily without pain. In the original case, which forms the basis of JAHN's paper, the patient was a boy, aged five. Shortly after birth his parents noticed that but little urine passed from the urethra, but quantities of fluid escaped from the navel. When five years old, a right inguinal hernia developed, then further attention was directed to the older trouble. The umbilicus was flat and nearly as big as a shilling. It bore a funnel-shaped depression, whence urine issued when the abdominal muscles were set in action. A catheter of about one-fifth of an inch diameter passed easily for over five inches downwards in the direction of the symphysis. Another catheter, after passing with ease through the urethra into the bladder, touched the former passed from above. On applying pressure to the umbilicus, urine could be passed, though in a weak stream, through the urethra. The parts were examined by the cystoscope passed from above. VON MIKULICZ operated. He dissected away the umbilicus and the walls of the urachus, which widened greatly towards the bladder. The peritoneum was opened at one point and closed. Finally, the urachus was cut away at its vesical attachment, and the transverse wound in the bladder closed by suture. The lower end of the wound over the sutured bladder was drained with iodoform gauze. About two months later three attacks of fever occurred without any cause being manifest; micturition was normal. Three years and a half after the operation, the child, now 8½ years old, was in very good health. The urine was passed in a full stream, and was normal.—*Brit. Med. Jour.*

Absorption of Uncomplicated Immature Cataract by Conjoined Manipulation and Instillation.

KALISH (*Med. News*) reiterates his belief in his method, first published nine years ago, and notwithstanding lack of support and adverse criticism, he forcibly protests that it will often produce a permanent result, although he admits that some cases will not be modified. In a series of 118 eyes he reports 69 successful results, and states that the percentage in his recent cases is still higher. He excludes cases of complicated cataract, that is, those accompanied by diabetes, nephritis, choroiditis, retinitis, keratitis, or other serious systemic or local pathologic changes. He is unable to say at present whether or not arthritis is a serious complication. An error of refraction is an accompaniment, but by no means a complication. His conclusions are as follow: (1) Immature cataract is due to local conditions dependent on general systemic causes. (2) Senility is rarely a direct,

but may be a predisposing cause. (3) Fluids containing perverted aliment resulting from defective metabolism supplied to the lens through its nutritive stream may be considered an exciting cause. (4) Deficient blood-supply, thus reducing the quantity furnished, maybe considered a contributing cause.

The following conclusions may be drawn: (1) Immature cataract may be regarded as a largely preventable disease. (2) It may, by properly directed treatment, local and constitutional, be prevented, arrested, retarded or cured. (3) The circulation of the blood must be regulated. (4) The faulty digestion must be rectified. (5) Constant supervision of the eye must be maintained by a competent ophthalmologist, that eye strain be relieved, and all changes in refraction be promptly remedied. (6) Treatment by conjoined manipulation and instillation should be instituted at the earliest possible moment. (7) Finally, if local and constitutional treatment should not provoke a favorable issue, they will establish a more nearly normal state of the ocular tissues, and if an operation be found necessary, this improved condition of the ocular structures will ensure a larger degree of success.

Differential Diagnosis between Chronic Joint Disease and Traumatic Neurosis.

REGINALD H. SAYRE (*New York Medical Record*) says that, from numerous cases which have come under his observation, he would say that in making a differential diagnosis between chronic joint disease and a traumatic neurosis, the following points are chiefly to be noted:—

1. A neurosis is apt to follow injury sooner than is disease of a joint.
2. The temperature is usually subnormal in a neurosis and elevated in inflammation of a joint.
3. The local temperature is usually much lower in case of a neurosis than in disease of a joint.
4. Atrophy progresses more rapidly after injury to a nerve.
5. True muscular spasm is not present, except in joint disease. It may be simulated, however.
6. True night cries are pathognomonic of joint disease.
7. The appearance of the patient, if indicating a disordered nervous system, may aid in the diagnosis.

Surgical Treatment of Microcephalic Idiots.

DR. HENRY PERCY DEAN (*New York Medical Record*) says:—So far as our experience guides us at present, we may formulate the following conclusions: (1) That the operation of craniotomy, if performed in four or five stages, is devoid of any special risk. (2) That in the congenital cases, in which there is probably always a maldevelopment of the brain, the operation is of no avail. (3) That in certain pathological cases the operation may be of some use in improving the child's condition, such as: (a) Cases in which blood-clots or cysts are present in or upon the surface of one cerebral hemisphere, as in some cases of infantile cerebral hemiplegia; (b) cases in which it is found on trephining that there is increased intracranial tension; (c) cases in which epileptic fits form a prominent feature are generally much improved, or the fits considerably modified by the operation; (d) cases in which, during a temporary arrest of the development of the brain, the cranial sutures have permanently ossified. (4) That in certain pathological cases the operation is of no avail, such as: (a) Marked atrophy and sclerosis of the brain; (b) conditions of porencephalus and hydrocephalus. (5) That it is impossible to determine the exact pathological lesion unless an exploratory operation is performed, with opening of the dura mater. (6) That in many cases by systematic training the mental condition can often be much improved without operation.

OBSTETRICS AND GYNÆCOLOGY.

Ophthalmia of the New-born (Neonatorum).

As is well known, proper precautions taken during the period of pregnancy, and especially at the time of parturition, will prevent almost every case of this disease. These precautions are set forth in an article by BUIST (*Scottish Medical Journal*).

1. *During Pregnancy.*—If there is any opportunity, ascertain whether the patient has merely the ordinary lubricating vaginal discharge or a purulent one. If purulent, examine for evidence of gonorrhoea, and undertake treatment without delay.

2. *During Labor.*—If it be only after the onset of labor that an abnormal discharge is discovered, a simple detergent vaginal douche may be given, antiseptics seeming to exert no favorable influence. The essential measure at this period is the scrubbing of the vulva, and this should never be omitted, but should be repeated if possible. If the membranes have been preserved till just before delivery, antenatal infection is not likely; but if they have ruptured early, the converse almost is true. When the head is born, wipe the eyes with clean absorbent cotton. Take a fresh pledget for each stroke. If you prefer to use a lotion, physiological salt solution or boric lotion is probably best (or corrosive sublimate solution, not stronger than 1 in 5000). In washing the child, the order of procedure should be—eyes, face, scalp, body, and no swab or cloth which has touched other parts should be allowed to come near the eyes. After the child has been washed, again cleanse the skin about the eyes, and then, separating the lids with finger and thumb, instil from a nipped dropper two drops of silver nitrate solution (two per cent.), ten grains per ounce of water. During the puerperium look at the child's eyes at each visit, including the last, and if you find the least purulent discharge, or other sign of possible infection, order the instillation of silver nitrate solution into each eye, one grain to the ounce, every hour. If one eye only is affected, have the child kept on the affected side. If in spite of this there is no sign of diminution of the discharge, or if it increases, consider the case one of specific infection, and hand it over to the ophthalmologist, with whom the further treatment must lie.

Obstetrical Operations.

EDWARD REYNOLDS (*Journal of the American Medical Association*) considers the major obstetrical operations from the standpoint of the general practitioners. He gives a tabular report of 23 successful consecutive cases. The operations considered are forceps and version, induction of premature labor, craniotomy, Cæsarean section and symphysiotomy.

He holds that, when the conditions are such that the child can be delivered with anything like reasonable ease by forceps or version, one of these operations is preferable to any cutting operation.

When the mechanical relations would render forceps or version unusually difficult, forcible and prolonged, and when the mother is in the favorable class, the equally low maternal mortality and the far lower foetal mortality of the Cæsarean section render it the operation of choice.

When the mechanical conditions make the intrapelvic delivery of an intact child a term impossible or unduly difficult, the great superiority of the Cæsarean section over the induction of premature labor in foetal mortality, and its extremely low maternal mortality, render it again the preferable operation.

When the ordinary operations fail and the woman is in the unfavorable class, symphysiotomy is the operation of choice; and may be expected to lead to a favorable result for both mother and child in the great majority of cases, provided always that the degree of mechanical difficulty permits of its application.

When in the unfavorable class of cases the degree of relative disproportion between head and pelvis is too great to admit of a safe symphysiotomy, craniotomy to the living child should be unhesitatingly chosen, since the maternal mortality of either form of the section is so enormous, and because he cannot doubt that the life of the potential mother of many children is of more value than that of any unborn foetus.

Gynæcological Massage.

DR. R. OLSEHAUSEN (*Centralbl. f. Gyn.*), in this exceedingly readable paper, appears as a vigorous opponent of massage in gynæcology. In spite of large reading and his extensive opportunities for clinical observation, he has not been able to place himself in line with the followers of THURN BRANDT. Tearing of adhesions after the method of B. SCHULTZE, or stretching the same in fixed uteri, he claims are procedures which cannot be included under the term massage. Similarly, replacement of a moveable retroflexed uterus by lifting is a method utilized long before the introduction of massage in gynæcology. He questions very much published statistics referring to cures of retroflexion (fixed or moveable) and prolapsus. As for the cure of endometritis, he denies such a possibility *in toto*. He believes the method justifiable in the treatment of ancient pelvic exudates which remain after a course of inflammatory disease has subsided, provided they are situated in a favorable locality and are not complicated with large tubal tumors.

He concludes that only solid connective-tissue pelvic exudates, which have long become torpid, are amenable to massage treatment. Even here he requires the tumor to be readily grasped between both hands working through a thin abdominal wall.

Only seldom can tubal tumors be successfully treated by massage, and then only when it is possible to drain the contents of a hydrosalpinx through the uterus. In tubal tumors which do not contain liquid, the influence of massage can only be exerted on surrounding infiltrations, and not on the thickened walls of the tubes themselves.

Peritoneal adhesions, hematoceles, displacements of vagina or uterus are not proper conditions for massage treatment, even if occasionally massage may be serviceable for surrounding exudates.

Opening the Bladder.

CONSIDERABLE discussion has taken place recently as to the best method of treating the bladder wound when an opening in the viscous has been made during the progress of an abdominal operation. Now-a-days, when one is accustomed to deal with cases of so difficult and complicated a character that only a few years ago they would have been regarded as hopelessly inoperable, wounds of the bladder and intestines are almost inevitable. The treatment of the former is really very simple. The wound must be cleansed, the muscular coat first, and then the peritoneal coat must be carefully sutured with catgut. Then a retaining catheter is passed and left in, being changed every 24 hours; and, in nine cases out of ten, nothing more is required.—*Medical Times and Hospital Gazette*.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Degeneration of Medullated Nerve Fibres.

G. MOSCOWSKY and A. BÄRZEL in the *Archiv für mikroskopische Anatomie und Entwicklungsgeschichte*, some results by new methods of investigation on the characters of the normal primitive fibrilla in nerve fibres in various animals and their pathological alterations. By a series of fixation experiments on egg albumen by acetic acid, already more carefully and widely done by BUTCHLI and others, they show that that fibrilla is an ideal one, in that it shows no peculiar reticulations when treated by other re-agents, and hence conclude that it has a like action on nervous protoplasm and thus can give no artefacts. They overcome the difficulties of poor staining qualities following such treatment by some reducing agent. They claim that the axis cylinder of medullated nerve fibres in vertebrates consists of sharply outlined individual primitive fibrilla and a homogeneous perifibrillary substance surrounding them. Every primitive fibrilla maintains throughout the nerve fibre a uniform calibre and shows no swellings at the nodes of RANVIER. At such nodes the perifibrillary substance is totally absent, and thus it, as a conducting element, has no place. The sheath of SCHWANN, although it sends down processes at the nodes of RANVIER, is also broken by these in much the same manner that the myelin sheath is segmented. An especial arrangement exists at the nodes to guarantee the isolation of the fibrilla. The first sign of degeneration in a nerve, following its solution of continuity, is a diminution in the primary staining qualities of these primitive fibrilla; following this there results a degeneration of the fibrilla themselves. By this degeneration these fibrilla form large granular bodies, which break down into smaller ones and are finally absorbed. The previously homogeneous perifibrillary substance shows granular changes. The degeneration does not take place all at one time, but follows regularly from the site of the trauma toward the periphery and toward the centre. In the peripheral end the degeneration is total, but for the central portion it is only partial, though single fibrilla may degenerate throughout. Sensory fibres degenerate faster than motor fibres. The authors could find no distinctions for primary or secondary degenerations. The paper is illustrated with suggestive figures.

Anatomical Researches in regard to the Cecum and its Appendix.

GIULIANO PERONDI (*Il Politecnico*), from studies upon cadavers, found among other things that the most frequent seat of the cecum was the inferior iliac region, and that it was nearly always completely invested by peritoneum. The form of the appendix was usually cylindrical, sometimes cylindric-conical, and occasionally rosary-like. Out of fifty cases, it was subperitoneal in five, intraperitoneal in forty-two, partly sub and partly intraperitoneal in two. The average length was 7.6 cm. (in one case 16.5 cm.), average breadth 0.5. The ileo-appendicular fold was usually inserted inferiorly on the appendix or near it. No folds or fossae were found in any case behind the cecum, but always behind the beginning of the ascending colon.

Human Cortical Ganglion Cell as an Independent Organ.

A. ADAMKIEWICZ, in a gracefully written article, first likens the cortex in its waking state to a mirror exposed to the light of day and reflecting all the pictures whose rays impinge upon it. This symbolises the phenomena of consciousness, but in its ability to retain impressions and store up the images of the past to form that complex of concepts, we know, as experience, the mirror must also have the characteristics of the sensitive plate. But in addition to these purely reproductive faculties the cortex is possessed of creative ability, and the products of its activity during sleep we call dreams, and those of the waking state, imaginations. Experiments on the development of memory of children, and on the cerebrum itself in dogs and monkeys, have shown that experience is the result of mechanical alterations in the ganglion cells for memory in general can be obliterated by severe consciousness or mechanical injury to the brain. It is to the ganglion cell as the ultimate seat that the mental faculties as such are to be referred, and while its powers of seeing and hearing depend on its connection with the eyes

and ear for their relation to the outside world, their functions go on its interior even when it is fastened, and are comprehended under the title of dreaming.

Hansen's Cirrhosis.

HANSEN LEVER ascribes to SPENCER the credit for having systematised the formerly conflicting views on the various types of cirrhosis, and by establishing definite pathological classifications, having reconciled to each other the contradictory teachings of different writers. The essentials of his findings are as follow: (1) The size of the diseased liver will depend on the amount and the character of the adventitious connective tissue it contains. If no circumscribed contraction takes place, the organ remains enlarged, and the function of vessels and parenchyma remain unimpaired, the case then representing a typical HANSEN'S cirrhosis. On the other hand, contraction of the tissue induces a diminution of size with concomitant destruction of liver cells; typical LAENNEC'S cirrhosis. Portal hypertrophic cirrhosis and portal cirrhosis with jaundice due to gastro-duodenal catarrh are subclasses of this type. (2) If the formation of bile is diminished while its outflow through the biliary passages is unimpeded, no jaundice results. This is the case in LAENNEC'S type, since the parenchyma cells are early destroyed, while the larger bile passages remain patent. In HANSEN'S form, however, opposite conditions prevail, since the bile is manufactured in normal amounts, while ducts are narrowed through angiocholitis or periangiocholitis. (3) Ascites and venous dilatation of the abdominal wall and in the gastro-intestinal tract are due to congestion of the portal vein. (4) The swelling of the spleen has not yet been satisfactorily explained. Congestion alone is not a sufficient cause, and probably the same poisons (alcohol, syphilis, malaria) which affect the liver act on the spleen also.—*New York Med. Rec.*

Comparative Study of the Biological Characters and Pathogenesis of Bacillus X (Sternberg), Bacillus Icteroides (Sanarelli), and the Hog-Cholera Bacillus (Salmon and Smith).

THE December number of the *Journal of Experimental Medicine* contains an article on this subject by W. REED and J. CARROLL. From the experiments made by these observers, the following conclusions were reached:—

1. Bacillus X (STERNBERG) belongs to the colon group.
2. Bacillus Icteroides (SANARELLI) is a member of the hog-cholera group.
3. The various channels of infection, the duration of the disease, and the gross and microscopical lesions in mice, guinea-pigs, and rabbits, are the same for bacillus Icteroides and the hog-cholera bacillus.
4. The clinical symptoms and the lesions observed in dogs inoculated intravenously with bacillus Icteroides are reproduced in these animals by infection with the hog-cholera bacillus.
5. Bacillus Icteroides when fed to the domestic pig causes fatal infection, accompanied by diphtheritic, necrotic, and ulcerative lesions in the digestive tract, such as are seen in hogs when infected with the hog-cholera bacillus.
6. This disease may be acquired by exposing swine in pens already infected with bacillus Icteroides, or by feeding them with the viscera of infected pigs.
7. Guinea-pigs may be immunised with sterilised cultures of bacillus Icteroides from a fatal dose of the hog-cholera bacillus, and vice versa.
8. Rabbits may be rendered immune by gradually increasing doses of a living culture of bacillus Icteroides of weak virulence from a fatal dose of a virulent culture of the hog-cholera bacillus.
9. The sera of animals immunised with bacillus Icteroides and with the hog-cholera bacillus, respectively, show a marked reciprocal agglutinative reaction.
10. While the blood of yellow fever practically does not exercise an agglutinative reaction upon bacillus Icteroides, the blood of hog-cholera agglutinates this bacillus in a much more marked degree, thus pointing, the authors think, to the closer etiological relationship of this bacillus to hog-cholera than to yellow fever.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Proper and Improper Methods of Cleaning Public Buildings and Conveyances.

OTHER the more or less elaborate process of cleaning of rooms and conveyances becomes a means of dissemination of bacteria-laden dust, rather than of removal of dust and dirt. In many cases one may very readily convince himself that the cleaning merely disturbs the accumulated dust, which soon settles down again upon the very articles and floor just dusted. This improper method of cleaning is seen only too often in public buildings and public conveyances as well as in private houses. The question has been subjected to a scientific inquiry by EDWIN W. FIRTH, sanitary engineer, who conducted a series of experiments upon micro-organisms in the air of public buildings and conveyances as the result of improper methods of cleaning. He points out that correct cleaning is based on certain principles, among which may be mentioned the following: Absorbent floor materials should not be allowed to conceal dust and dirt; non-absorbent flooring should be used in public places; this means the removal of carpets from churches and theatres and of fiber mats from cars and boats; linoleum and rubber mats may be substituted. Damp sawdust on floors is useful for retaining some of the dust raised in sweeping. Dust and organisms suspended in the air after sweeping settle more quickly in a closed room than in a ventilated one. Strong currents may keep organisms in suspension for a long time unless the draught passes directly through the room. For these reasons sweeping and dusting in public places should be done at such times as to allow settlement of the dust before occupancy. Dry sweeping and dusting are condemnable, and should never be allowed in the presence of numbers of people. Absolute removal of the solid impurities of the air that settle in all buildings, and of the dust after sweeping, is best accomplished by the use of damp cloths, and frequent mopping and washing are necessary. As dampness is to be avoided, wooden flooring should be substituted with stone or tile. The material accumulated in cleaning should be destroyed or disposed of in such a way that "it will not be merely a nuisance transferred to another place," which is the great objection to many methods of cleaning.—*Jour. Amer. Med. Assoc.*

Infant Feeding.

ROTH concludes from experiments made by Drs. WHITE and LADD, under his supervision, that the addition of cereals to cow's milk for young infants is unnecessary, because better results can be obtained by other methods, and it is irrational, since it differs from Nature's methods. In a certain proportion of cases where the cream is mixed with milk, water and lime-water, the emulsion at times appears partly disturbed, and this condition has been held by some to counterindicate the general principle of the percentage feeding. This subject has also been investigated, and he does not find that the disturbance of emulsion does any special harm. As regards the management of proteins in infant food, he says that an object to be kept in view in regulating the lactation of the first twelve months of life is, in the early months, to start with a low percentage of proteins and to make the composition of this low proteid in the proportion of two-thirds whey and one-third caseinogen. As the infant grows older, we should not only increase the proteins, so that in the latter part of the year it can take the high total proteins of undiluted cow's milk, but also that the proportion of whey proteid to caseinogen should, as the total proteid becomes higher, be gradually changed from two-thirds whey to the one-sixth contained in the total proteid of cow's milk. He gives a table of prescriptions that it is possible to follow in the milk laboratory, and he believes that it is perfectly possible with the good milk supply, such as comes from the laboratory farm, to prescribe a percentage mixture which will retain its emulsion, except under extraordinary circumstances of transit and heat. It need not be pasteurized excepting for long distances in hot weather, and will not need to have cream added for their mechanical action. He thinks that a negligible cream no more disturbs an emulsion than a gravy cream, and therefore is preferable as about one-half a day thicker.—*Jour. Amer. Med. Assoc.*

Judicial Definition of Live Birth.

At the recent Shrewsbury Assizes, according to the report in the *Times* of March 8th, Mr. Justice WESLEY, in *R. v. Pritchard*, a case of alleged infanticide, said "That the true test of separate existence in the theory of the law (whatever it might be in medical science) is the answer to the question whether the child is carrying on its being without the help of the mother's circulation."

This is an important dictum. We apprehend that it coincides exactly with medical science, but that the law has hitherto taken the same view of the matter is very much open to question. Lawyers would appear hitherto always to have understood that the child must be altogether expelled from the maternal parts before it can be considered born. This has often been criticised by writers on forensic medicine; for instance, on page 769 of *WOODMAN and TIBBY'S Handybook*, the writers say: "We think the law, which requires that the child shall be entirely expelled from the mother before being considered born, is a direct encouragement to child murder. There seems, however, no doubt that this is the law as interpreted by our judges. In the case of *R. v. Poulter* (CHITTY, *Med. Jur.*, 418), the medical evidence showed that the child had breathed, but as the witnesses would not swear that it was wholly born alive, the judge held the evidence insufficient to convict the prisoner." In *R. v. Simpson*, GURNEY B. would not allow the case to proceed against the prisoner, when it was stated that the lungs might have become distended by breathing during birth. PARKES B. charged the grand jury at the Hertford Assizes in 1841, "That in cases of infanticide the law requires that the child should have come from the body of the mother, and COLTMAN J. ruled that the jury must be satisfied that the entire body was in the world in a living state when the violence was offered to it."

Every medical man knows that a child may have been living without the assistance of its mother's circulation before birth and afterwards be stillborn, so that this latest judicial decision as to the "test of separate existence in the theory of the law" would, if accepted by other judges, make the law sometimes different from what it has hitherto been supposed by writers of law books to be.—*Brit. Med. Jour.*

May show Condition of Womb and Probable Sterility.

If a married woman is injured by the negligent act of another, she is entitled, the Court of Appeals of Kentucky holds, in the case of the South Covington and Cincinnati Street Railway Company *vs.* Bolt, to maintain an action for damages, and the same criterion of recovery exists as to her as to a man or a single woman. Moreover, it holds that the married woman injured in this case was entitled to show by the physician who attended her the condition of her womb, and that in his opinion she could never again bear a child, although, as the judge properly instructed the jury, the jury could not consider the question of her sterility in fixing damages. The court says that she was entitled to show the extent of her injuries, and in describing the condition of the womb, if it showed that she would probably be sterile thereafter, it was proper for it to go to the jury. It was her right to show the extent of her injuries, but, if a certain condition which appeared to exist could not enter as an element of the question of damages, it was proper for the court to tell the jury so, but the necessity for doing that could not deprive her of her right to show the extent of her injuries.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

New Test-meal.

THE test-meal has become absolutely necessary in examining the stomach contents. The three meals chiefly employed are EWALD's, consisting of one to two rolls and two glasses of water; BINGEL's, consisting of soup, a beefsteak and a roll; and KLEMPERER's, consisting of half a tittle of milk and two rolls. EWALD's meal is withdrawn one hour, BINGEL's three to four hours, and KLEMPERER's two hours after eating. A. M. AUSTIN (*Boston Med. and Surg. Jour.*) finds two serious objections to all of these meals, as follows: (1) The indefiniteness of the amount of the food elements employed—nitrogen, fat and carbohydrate; and (2) that on account of the lack of fine division, the tube introduced is frequently clogged, which necessitates its removal, its cleansing and reintroduction. The writer has made a number of experiments with a test-meal consisting of two grams of dried egg albumin compressed into half-gram tablets, and two glasses of water, the contents of the stomach being withdrawn one hour after eating. The amount of albumin in these tablets is equivalent to that found in the rolls, or crackers, of the EWALD meal, but is in a different and more soluble form. The advantages of this test-meal of albumin tablets are: (1) The contents never clog the tube; (2) there is always a definite amount taken; (3) the contents filter much more readily than when vegetable albumin is used; (4) a large mass of starch granules is avoided; (5) these tablets, when compressed, can be kept indefinitely, are always on hand, and can be given to the patient without his leaving the office; (6) furthermore, lactic acid when found is of vastly more diagnostic importance than after the EWALD meal, because in this case the acid must come from the remnants of the last meal, and hence point to a lack of motility. The writer cites in detail a number of cases in which this meal was used, and discusses the results obtained, showing the advantages of the albumin tablets over other test-meals.

**Present Status of the Subarachnoid
Injection of Cocaine for Anæsthesia
(Corning-Bier Method).**

JOHN S. MILLER declares that the enthusiasm of the surgeon must be tempered by the conscientious observance of the most minute details. To be misled by the *furore* is both reprehensible and sad. Cases should be carefully selected, and this variety of anæsthesia should be used only when ether and chloroform are contra-indicated. Cocaine is at times very perverse in its physiological effects. A decided advantage over general anæsthesia is that the respiratory, cardiac, and renal organs are not so seriously disturbed as by the inhalation method. The patient can also confer with the surgeon during the operation in case a modification of the original plan must be made. Among the disadvantages are almost uncontrollable headache, lasting sometimes a week, nausea, vomiting, vertigo, cyanosis, elevated temperature, weakness, and relaxation of the sphincters, sometimes lasting several days. Psychological disturbance may be extreme. On the whole, the reports of American operators are more favorable than those of our European colleagues. The matter of preparing the solution has not been settled. The writer believes that there is a medico-legal element in these experiments. The absolute consent of patient and family would be advisable before operation.—*New York Med. Rec.*

**Soup Diet and Rectal Irrigations in
Typhoid.**

ON the ground of the probability that milk favors germs, SELLER has attempted the use of other fluids, such as soups. At the beginning of the attack he gives plain cold water for twenty-four hours after the initial purge, then soups made of meat-broth, containing oatmeal, barley, rice and peas, strengthened, of course, with spices, and later lentil soups with eggs. Five meals in all were given during the day, preceded by 5 to 15 drops of diluted hydrochloric acid, unless hypotendity prevailed. No other medication was employed, but two to four warm-water enemata were given daily. The results were the disappearance of headache, delirium, nausea, insomnia, tympanites, vomiting and fur on the tongue; the

appetite returned frequently on the fourth day of treatment, even when considerable temperature existed. Extensive diarrhoea even disappeared immediately within one week. In all uncomplicated cases the temperature began to decline within twenty-four to forty-eight hours after the beginning of treatment, and invariably reached the normal within ten to twelve days. In cases complicated by pneumonia, nephritis or phlebitis, the temperature generally remained in accord with this condition until it disappeared; while the cerebral, gastric and intestinal disturbances subsided as rapidly as in uncomplicated cases, excepting only the anorexia. Complications, when not present at the start, were very rare, usually appearing in the first two days. Intestinal hæmorrhage was noticed in three cases, none ending fatally; perforation did not occur. In all of the 118 cases treated in this manner there were seven fatalities; three patients were brought in moribund and four had complicating bilateral pneumonia.—*Jour. Amer. Med. Assoc.*

Handy Device in Optium Narcosis.

IN order to keep a patient awake during optium narcosis, W. H. LYNN advises a thorough tickling of his body, which procedure, he says, not only awakens the patient, but angers him nearly to the point of fighting. He summarises the advantages of this method by saying that the doctor has it handy, it has a wide range of application, is simple, leaves no marks of violence, and is efficient.—*Virginia Medical Semi-Monthly.*

For Tinea Sycosis: Barber's Itch.

R	Acidi tannici	...	aa	gr. xlv.
	Sulphuris precipitati	...	...	3iss.
	Zinci oxidi	...	...	3iv.
	Amyli	...	...	3i.
	Vasolini	...	...	...

M. Sig. To be used twice daily.

R	Acidi carbolici	...	...	gr. v-x.
	Acidi tannici pulv	...	...	3ss.
	Glyceriti tannini	...	...	3ss.
	Sulphuris precipitati	...	...	3ss-ii.
	Unguenti aquæ rose	...	...	3i.

M. Sig. To be thoroughly applied as early in the evening as possible, and left on as much of the time as possible.

This ointment is very highly recommended by L. D. BULKLEY, of New York City. It may be strengthened in chronic cases by the addition of unguentum hydrargyri oxidii rubri, 3i to 3ii.

Correspondence.

**THE ARMY MEDICAL SERVICE: WHY IT IS
NOT POPULAR.**

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—An Army Doctor contributes the following significant article to the *Daily Chronicle*:—

"It is futile (he writes) to conceal the fact that for some years past the Army Medical Service has become so unpopular in the medical schools and universities throughout the United Kingdom that it has become impossible for the War Office to obtain a sufficient number of candidates to fill the Royal Army Medical Corps with officers. Competition, which was the authorised channel of entrance into the Corps, has for long past been a failure, as insufficient candidates presented themselves for vacancies. Owing to this, 'nominations' had to be offered; but even then it became impracticable for the War Office to secure the number of men required. This shows clearly that an important branch of the public service has failed to attract a desirable class of young medical men. While Army Medical Officers labour under various disadvantages, there is no likelihood of matters improving, and, therefore, reform is necessary.

Not only this, but any scheme of reform which may be in view (and that there is one in view has already been announced by the Secretary of State for War in the House of Commons) must embrace rectification of existing grievances in the Army Medical Service.

It is not proposed in this article to discuss the rights or wrongs of the South African Hospitals Commission Report, save to remark of it in general terms that the Report embodies almost every grievance of which army surgeons have not only been complaining, but have been pressing for remedy; alas! hopelessly. Having stated thus much, it becomes a duty to suggest the chief considerations which should guide the framers of any projected reform of the Army Medical Service, so that men of good professional attainments may be attracted to it in sufficient numbers.

THE RATE OF PAY.

First comes the subject of pay. It must be recognised that in recent years the curriculum for the medical student has been largely extended, and, as a consequence, the attainment of qualifications as surgeon and physician has become much more expensive. Whereas a study of three years at the medical schools used to be sufficient, five years are now required for hospital work and attendance at lectures. Once a young man is qualified, there are now several attractive billets for him in civil life at home and in the Colonies, where he is fairly paid and is not subjected to the expense attendant on army service—a *g.*, providing himself with uniform, together with the liability to incessant moves from station to station owing to what is termed "Service exigencies," which seemingly arise much too frequently in the Army Medical Service. The young man equipped with a double qualification is not generally a man of independent means, and therefore does not wish to start in life hampered by pecuniary difficulties, which are inevitable on entering the army, but avoidable in civil life. The pay, therefore, of the junior ranks of the Medical Service is in need of readjustment. The glitter and glamour of military life are not in themselves sufficient to attract men of professional attainments. The young qualified man can, in civil life, command £120 to £180 a year, and all found, and no expenses of uniform or incessant moves in his career. The same man, if he enters the Army Medical Department, may get his £200 a year, exclusive of allowances (coals, light, and lodging), but with this he has to meet the expenses aforementioned, which leave him but little on the credit side.

OPPORTUNITIES FOR STUDY.

Second comes study leave coupled with privilege leave. This is a burning point. With regard to "study leave"—i.e., leave specially given to enable army surgeons to keep abreast of their profession—it may be said, absolutely without fear of contradiction, that not a single instance exists of its ever having been obtained on application. We often hear in army life of the "good doctor," but what have the War Office authorities ever done to encourage the army surgeons to be "good doctors." In civil life men have opportunities (largely availed of) of attending post-graduate courses of lectures and attending hospitals for stated periods, so as to keep themselves au courant with the advances in their profession; but such opportunities are denied to the army surgeons. To show that great significance has been, for long past, attached to study leave, it may be stated that Lord HAMBURGH'S Commission, sitting in 1858 on army medical affairs, had before it the subject of inquiry "into the means now adopted for acquiring and keeping up, or adding to, the professional knowledge of our Medical Department." That Commission recommended "that leave of absence be granted for attendance at hospitals and medical schools." Here, now, forty-three years afterwards, we

are as distant as ever from study leave. This alone convicts the War Office of want of sincerity in its cry for "good doctors." Now to this all. Again, in 1883, Lord MORLEY'S Committee (after the Egyptian War of 1882) made a recommendation "that greater facilities should be given for special courses of study in civil or military hospitals in London or foreign capitals." We look in vain for any executive decision!

Further still, Lord CAMPERDOWN'S Commission, sitting later even than Lord MORLEY'S, emphasised the need of study leave by proposing that "since in every seven years a medical officer should be granted at least three months' leave in addition to, and independently of, his ordinary leave, on the distinct understanding that such a period be spent either in attending a properly approved course of lectures, or in attendance at some large civil hospital; and, further, that greater facilities should be given to medical officers for obtaining diplomas and high degrees in medical schools or universities during their service in the army." In short, the outcome of all these Committees' recommendations is—nothing. The public will scarcely believe that such significant recommendations should have been for so long treated with studied indifference by the very authorities who glibly express a wish to enlist "good doctors!" But so it is, and the sufferer by the transaction is the army surgeon. It is no wonder that the South African Hospitals Commission reiterates the recommendation for study leave to enable the army medical officers to keep up to date.

The lack of study leave, however, is not all. An officer is supposed to get what is called privilege leave for sixty days each year for relaxation. Owing to undermanning of the Army Medical Service (continuous for years), there have been but few instances of a medical officer having been able to obtain his full privilege leave. It is only with great difficulty that half the period can be obtained, and this even has been denied to many owing to the convenient phrase, "service exigencies." This is a very substantial cause of complaint, and is applicable to foreign service as well as to service at home. In fact, the dangerous depletion of the ranks of the Army Medical Staff, carried out by the military authorities in face of the resistance and advice to the contrary given by the head of the medical service, is the chief cause of army surgeons being deprived of privileges they should enjoy.

HOME AND FOREIGN SERVICE.

When the present system (called the Unification of the Medical Department as compared with the old regimental system) came into operation some twenty-eight years ago, it was intended that the home and foreign service of officers should be equalised, but owing to the whit-ting process carried out by the War Office against the advice, as has been stated, of the medical authorities, the home service of army surgeons has become small, out of proportion to their foreign service. The latter is close on six years, and after this barely two years at home fall to the army doctor to recuperate. In round numbers, out of a total of thirty years' service, some twenty of them will be passed abroad. This does not apply to any other branches of the army.

PROMOTION.

The system of promotion by seniority is in need of revision. Nominally, ability and merit are supposed to rule selection to the higher ranks; but in reality the so-called selection has been productive of unfortunate results, for officers have found themselves in administrative grade who had no business to be there. Some scheme should be devised of retiring an officer in the higher grades who has been superseded for unfitness. At present such officers are permitted to serve on in the administrative grade till sixty years of age, or in the executive ranks till fifty-five. This blocks promotion and leads to a

half-hearted performance of duty. A disappointed and disheartened man, having no further prospects of advancement, is not likely to be efficient, or an acquisition in any way. Therefore, give him some money and retire him. Money so spent will be a gain in the end. For administrative rank you not only want a man with professional knowledge, but with powers of organisation and administration.

THE STATUS OF THE ARMY DOCTOR.

The status of the medical officers has been lately somewhat improved, but much still remains to be done. There is still a feeling that the military authorities display a determined hostility and antagonism to the army medical officers. There can be no doubt that whatever concessions have been made for years past by the ruling military authorities to the Medical Service have been wrung out of the former by the latter. Nothing has ever been given on demand without a determined struggle between the War Office and the Medical Service. All this is very well known in the medical profession and by students in the medical schools; hence the feeling against entering the Army Medical Department. Even at this date, when, after years of struggle, the homogeneity of the medical officers and the non-commissioned officers and men of the department has been secured by a Royal Army Medical Corps, there are derelictions of the rank and titles conferred on the officers of the corps. The whole question of the status of the army medical officers may be fitly summed up by the statement recently made by so eminent an authority as Sir WILLIAM MACCORMAC, who occupies the distinguished position of President of the Royal College of Surgeons. Sir WILLIAM MACCORMAC said in his address to the Hunterian Society: "One of two things must be done—either the Medical Department of the army would be swept away altogether, or, if it were retained, it must be kept on a much better footing than it now was. Medical officers must be placed on a higher status. Their chief (i. e., the Director-General, Army Medical Staff) was not accorded the high place he deserves to occupy, and which he occupied in other countries." Sir WILLIAM then pointed out how different was the position of the chief of the German Army Medical Service, by stating that he (Sir WILLIAM) knew personally that the chief of the German Army Medical Corps occupied a position in which he was not only respected, but his word was law; whereas in this country the Director-General occupied quite a subordinate position, not only in regard to pay, but also in regard to his official status. The *summa bonum* of Sir WILLIAM MACCORMAC'S address amounted to this: "If the country wished to have such an Army Medical Service as it ought to have, that service must be accorded a certain amount of sympathy; it must have its proper level and proper pay if its ranks were to be filled." Here, then, is the advice on which the Secretary of State for War might rely for a solution to the difficulties not experienced in getting candidates for the Army Medical Service. The public needs instruction on the subject, and it is with this intention that this article is written. The public has no opportunity of reading the military or medical journals wherein military medical questions are discussed. The writer has dealt with the most important points requiring consideration, and has avoided nothing minor matters, which might also receive attention; but it is solely and wholly for the enlightenment of the public that this article has been written."

Yours, &c.,
L. M. S.

PERMANGANATE OF POTASH IN THE TREATMENT OF MYCOTOMA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The disease mycotoma, which is so common in the East, and which is an evil attached to the open air, and therefore otherwise healthy life of the peasantry, needs our special concern from the point of view of its treatment. The fungoid origin of the disease is recognised by Dr. H. V. CARTER, and confirmed latterly by experiments conducted in Europe and in India, is now an established fact which needs no demonstration. The pale and the black varieties of the fungus, which occur in different cases of the disease, irrespective of any etiological or social difference in the condition of its victims, were at one time regarded as transitional stages in the growth of the same parasite. Later researches have, however, shown that, while the two varieties of particles which exude from the mycotomous growth, and which are morphologically so different from each other, belong to the same species of entophyte, they have no pathological connection with each other, and appear to be different manifestations of the same fungus. This is proved by the fact that the pale variety of particles which infect any particular case of the disease is followed by the pale particles extending from it throughout its course, and the same is the case with the black variety; and BOCCARO is quite right in his statement that even in case of a recurrence the pale form is followed by the pale, and the black variety has the same sort of black granules pervading the infiltrated area of the disease.

The parasitic nature of the disease having been placed beyond all possibility of doubt, there follow certain important questions of conservative surgery, which affect the future well-being of the patient, who, if the disease is left to itself, is incapacitated for the rest of his life, and the only chance that an amputation can give is a less troublesome yet physically disabled existence for all the active pursuits of life. Of all the parasitic diseases to which the skin is liable, the most protracted and molecularly destructive is mycotoma; and further, in its tendency to a recurrence, it resembles the graver maladies, viz., cancer or sarcoma. Why should a disease known to be parasitic in its nature have such a destructive tenacity, and whether it is possible to discover any parasiticide that can annihilate, arrest or modify its destructive tendencies, are questions for the Indian scientist to consider, chiefly in view of the disabled existence meted out to the victims of the disease for the rest of their lives.

There was a case in point where, to avoid the evils of a crippled existence, the patient refused amputation, and a trial was made with permanganate of potash after a partial excision of the growth:—

Patient K, a Mahomedan female, aged 30 years, in a good condition of physique, was admitted for mycotoma of her left foot of six months' duration on the 21st April 1899. The disease commenced in the form of small excrescences which burst under continuous pressure and discharged a watery fluid of a greenish colour and charged with white granules. At the time of admission the disease had extended deeper and occupied a triangular area, the apex of the triangle corresponding to the inner margin of the middle of the sole of the foot, the base extending along the dorsum of the foot, a little below the external malleolus. The central portion was occupied by a nodule or tumour of the size of a hen's egg; the remaining area was ridged with sinuses, which gave exit to an ichorous discharge charged with white granules. The tumour was laid open under chloroform and the sinuses were opened; the whole infiltrated skin and muscular tissue were dissected out, a search was made for any burrowing of the sinuses which were all open

as far as possible. The parts were cleaned with hydrogen peroxide lotion (1 in 1000), and the whole area operated upon was stuffed with cubes of lint soaked with potash permanganate lotion 5 gra. to 1 ounce of water, the dressings were renewed every alternate day (the temperature remaining normal). The wound healed up in about one month. To avoid any trouble in the future, the patient was instructed to bathe the parts every day with the permanganate of potash lotion and avoid field labour, and never to go out bare-footed. This last instruction was particularly enjoined, and, strange to say, she has kept well till now. It is important to know it, in cases of commencing mycetoma, a complete excision of the diseased tissues with potash permanganate dressing, and avoidance of bare-footedness, can improve the prospects of mycetomatous patients.

Yours, &c.,
LANCET.

5th May 1901.

MILITARY HOSPITAL ASSISTANTS AND SPECIAL PROMOTION.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—A proposal has been generously set on foot to favour second grade senior Military Hospital Assistants with the distinction and rank of Lieutenant for merit and ability, similar to that to be granted to second grade senior Assistant Surgeons. But as the proposal appears to be vague and obscure, I shall feel very thankful if you, or any of the numerous readers of your highly esteemed and justly popular journal, will kindly elucidate the subject by replying to the following queries:—

- (1) Who is to be considered a supernumerary?
- (2) What meaning is to be attached to the phrase merit and ability, and who is to judge whether a man actually possesses such qualifications as to be pronounced as possessing merit and ability?
- (3) If any other conditions are required besides these, what are they?

Many are interested in these interesting and burning questions, and I shall therefore feel obliged by an insertion of this letter in an early issue of your journal. I append beneath the letters referring to the question raised.

Yours, &c.,
ONE INTERESTED.

Medical Department (Subordinate) No. 1586-D.

FROM
THE GOVERNMENT OF INDIA, MILITARY DEPARTMENT.
TO
THE DIRECTOR-GENERAL, INDIAN MEDICAL SERVICE.

Fort William, the 8th March 1901.

Sir,—I am directed to acknowledge the receipt of your letter No. 6818, dated the 5th October 1900, requesting to be informed, with reference to clause 85 of the Indian Army Circular, 1900, sanctioning the division of the grade of senior Hospital Assistants into two classes, whether the procedure prescribed in Medical Department letter No. 4444-D, dated 19th November 1891 for the promotion of supernumerary senior Assistant Surgeons with the honorary rank of Lieutenant, is to be followed in the case of supernumerary senior Hospital Assistants of the second class.

2. In reply, I am to say that the ruling referred to is to be regarded as applying to supernumerary senior Hospital Assistants of the second class.

I am, &c.,
(Sd.) H. T. KANNY,
Asst. Secy. to the Govt. of India.

Medical Department (Subordinate) No. 4444-D.

FROM
THE GOVERNMENT OF INDIA, MILITARY DEPARTMENT.
TO
THE GOVERNMENT OF MADRAS, MILITARY DEPARTMENT.
Fort William, the 19th November 1891.

Sir,—In reply to your endorsement No. 5379, dated the 25th September 1891, I am directed to say that, for the information of the Governor in Council, if an apothecary who is promoted as a supernumerary to the second grade of the senior apothecary for field service rises to the top of the grade, and is advanced to first grade senior apothecary by selection for merit and ability, he is still to be considered supernumerary in his new grade until all those who were formerly senior to him have been either promoted to the first grade or passed over, and another man may be promoted at the same time to the first grade of senior apothecary to fill the permanent vacancy in that grade.

2. In order to make the intention of the order conveyed in Military Department letter No. 4876-D, dated the 22nd December 1890, more clear, I am to append the following illustration for information and guidance:—

If A, B, C and D be four Warrant Medical Officers in the above order on the list of apothecaries, and D is promoted for any special service to the senior apothecary, second grade, supernumerary, then the order of these men all through the second grade of senior apothecary would be D, A, B, C. When D came to the top of the list of second grade senior apothecary, and a vacancy occurred in the first grade, then D would be promoted and also A provided, both are selected for promotion for merit and ability.

On the occurrence of the next vacancy, B would go up; and on the occurrence of the third, C would be promoted, if they too are selected for ability and merit. But on the occurrence of the fourth vacancy, D, who had hitherto been in excess, would be absorbed, and no promotion would be made.

I am, &c.,
(Sd.) E. H. H. COLLEN, Major General,
Secy. to Govt. of India.

CIVIL HOSPITAL ASSISTANTS:

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—May I request the favour of your kindly informing the anxiously waiting poor Hospital Assistants in the Civil Department if anything is to result or not from the memorial submitted to the Indian Government on their behalf.

It is a period of more than a year when I read in your much esteemed journal, the *Indian Medical Record*, that the papers regarding the Civil Hospital Assistants were under consideration, but since then I have heard no more about the same. In such case, is there any obvious reason, Sir, why we should not request the favour of your moving Government on their behalf as soon as possible. And is there any reason, Sir, why you should not lend a helping hand to the poor Civil Hospital Assistants, while your benevolent and disinterested efforts have done much for their brethren in the Military and Civil Assistant Surgeons as well as in the Military Hospital Assistant classes respectively?

Any information regarding the bettering of the prospects of the Civil Hospital Assistants in your valuable journal will produce a soothing effect on the hearts of the long-waiting Hospital Assistants.

Yours, &c.,
C. M. S.

JODHPUR, 6th May 1901.

THE MADRAS MEDICAL COLLEGE: ENGLISH COMPULSORY UNIFORM DRESS RULES.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Please permit me some space in your valuable paper for the insertion of the following, found in the Madras Medical College Calendar for 1898-99, which is too good a gem for ferrency and perspicuity to be lost. The italics give the wording of the new regulations in force:—

"Medical students' dress regulations (For natives of India only)—

"1st. *The typical dress.—Turban, a long or short coat buttoned up to the neck, trousers and English shoes. Underclothing according to choice.*" It is a relief that in the case of underclothing it is left to choice: "but where the material of the coat is not washable, e.g., tweed, a linen collar should be worn, and if the coat do not button up to the neck, collar and tie must always be worn," even if the coat is not on, we do not know. "Whatever the material." What is the force of the "but" in the beginning of the last sentence? "The Parsee hat and Burman head-cloth are, for the purposes of these regulations, to be regarded as turbans," and we may add for all other purposes they are to be regarded as what they are in fact.

"2nd. *Modifications permissible—*

"(a) *Students who wear a tuft. When the tuft is worn on the back of the head*" (it were better to give the anatomical position of this part), "a turban must always be worn: when on the top" (would this mean that when the turban is on the top), "as is customary with West Coast students, a cap may be worn, but the back hair must then be cropped close, not shaven."

"(b) *Students who dress their hair after the European fashion may wear caps: but in-doors (?) if their dress is otherwise European*"—would this mean, if the dress is not European (what else is meant by otherwise?)—"the cap must be removed."

"(c) *Any student who crops the back of his head*" (this feat is quite impossible, though the sentence is quite threatening) "may wear a cap in lieu of a turban: but it is not to be removed in-doors, if it conceals a 'tuft' (of a cloven foot, I beg pardon) or a shaven crown, or if the other articles of apparel are not after European style."

"(d) *Any student may wear a dhoti or mundu, but he must then go barefooted (?) in-doors, or wear socks and European shoes.*" Note the force of "may," and we are thankful for the gracious permission to wear a dhoti or mundu, at least in the absence of all the above articles of dress, even including underclothing. "The latter is recommended, as the feet are apt to get soiled or inoculated with septic matter, either in the hospital wards or dissecting rooms or out-patient rooms."

"3rd. *All articles of dress, whatever material, must be clean.*"

Do these regulations apply to native lady students?

In the Annual Report for 1898-99, the Principal said pithily how these laws came to be drawn up after con-

sultation with the native students of the college and one civil apothecary of the General Hospital. "Their recommendations were crystallised" into these regulations. Surely this is a curious crystal, and probably belongs to the seventh system.

Yours, &c.,
SANTINEL.

DESECRATION OF CHURCH PROPERTY THE CAUSE OF ILLNESS: ITS REMOVAL FOLLOWED BY RECOVERY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—No reply has been given as to the cause which led to the desecration of church property, published in the *Indian Medical Record* of 28th November 1900, under the above heading.

It so occurs that, in the compound of another dissenting church, a restaurant is maintained, where a good breakfast, dinner, and supper could be had, also mineral waters, &c., on payment at commercial rates. Being situated in the cantonment, it was resorted to by soldiers. The clerk of the church was its Superintendent, and an establishment of cooks, waiters, and butlers maintained.

To an ordinary mind the maintaining of a restaurant in a church compound would appear to be out of principle and not in accordance with the tenets of the Christian Church. And what has there been done in this restaurant? Merchandise and money exchanging!

It cannot be expected that under such circumstances Christian worship can be maintained on sound Christian principles. We are told that Satan overcame JUDAS to do a wrong act, and Satan could also induce a Chaplain to do a wrong act to sacred property, such as to desecrate it in the absence of good ecclesiastical rules. The inscription referred to would denote Satan's accession of power over church property, and on its removal, God's power manifested, which was co-existent with the recovery of the donor. The removal of the old article, and the substitution of a new one without any inscription, would seem to imply that the vestige of Satan's attempt had been removed, and an "approved sacred property" substituted. In other words, it is a case of Satan's attack on sacred property.

Yours, &c.,
R. JONES,
Assistant Surgeon, Bangalore.

W. M. O. PROVIDENT FUND.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I see from the *Medical Record* of last instant that the accounts of the W. M. O. Provident Fund have been made over to the Indian Medical Association, and that a part of the subscriptions paid by the members is to be refunded. I write to tell you that I was one of the earliest members of the W. M. O. Provident Fund when it was started by the late Mr. E. A. THOMPSON, who was an intimate friend of mine, and I

helped him much in getting up the Fund. I paid my monthly subscription regularly to him from 1883 to, I think, 1886. When, after his death, I got no statement of accounts, I stopped payment to the Fund, and provided for my children in the General Family Pension Fund. I must have paid into the Fund over 100 rupees. Kindly see the list of the first subscribers to the Fund, and you will find my name amongst them, and if any portion of my subscription is to be refunded, kindly send it. I need to pay one per cent. or two per cent. on my pay monthly. It is so long ago that it has quite escaped my memory, and I threw away all the papers I had. But the earliest records should show you what subscription I used to pay monthly on my salary, and how much money I have paid into the Fund. While Mr. THOMPSON had the management, he regularly sent me an account, but after his death I got no report, though I several times wrote and asked the persons who had charge of the Fund.

When the Fund was first started, I think I had to pay a donation to set it going, and if I remember right, it was ten rupees.

It was I who suggested to Major HODGKINS to place the Fund on the principle of the Railway Servants' Provident Fund, or Death Benefit Fund, and for each subscriber to give one rupee when a death occurred.

Yours, etc.,
W. WESTON,

*In Medical Charge, Remount Depot,
Babogar, near Hapur, Meerut District, N.-W. P.*

(We note that what Captain Weston says must be correct, for the W. M. O. Provident Fund opens with the entry of a large sum of money, but no account or list of any kind is forthcoming to show how this first sum was subscribed.—Ed., I. M. R.)

AN UNUSUAL CASE OF LONGEVITY IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following notes of a case of longevity were taken by me in March 1901, when I was in charge of Mianwali Dispensary, which I send for publication :—

It is a well-known fact that members of certain families live to very old ages, even when they may have subjected themselves to pernicious influences during their active lives. In some cases the tendency is inherited from the mother's side, in others from the father's, and when from both, the individual reaches to a very long age. Climate also appears to account for longevity to some extent, and in some places more people attain very old ages than in others. In this small place of Mianwali, a tehsil of Bannu, I have come across a number of old persons who have reached to very nearly the ages of 100 years, and in one case, who has passed over a century, very interesting signs of dotage have appeared. He is a Mohammedan, carpenter by profession, and has reached the age of 107 years now. His name is MUSTARRA. The grey hair of his beard is turning into black, and two new teeth have come out in his lower jaw. His digestion is good, and he can digest his ordinary food—bread of bajra, gow and meat. He is able to walk

about and does his ordinary work, excepting a little trouble during micturition, on account of somewhat enlarged prostate: his general health is good.

His father, according to his statement, died at 90 years of age, his mother at 105, his grandfather at 80, his grandmother at 110, his sister, still living, is one year older than himself. Two of his brothers died in pilgrimage to Mecca, when about 70 to 80 years of age, of cholera.

Yours, &c.,
RAM NARAIN (I), L.M.S.,
Assistant Surgeon.

BIAR, 28th April 1901.

Government Medical Gazettes.

BOMBAY.

The undermentioned Hosp. Assts. have passed the examn. qualifying them for promotion to the next higher class :—

Syed Abdul Rahiman; Bapuji Jadov; Shaik Gulab.

Gajanan Krishna; Atmaram Bapuji; Ramkishandas Loharam; Dattatraya Ramchander; Chubermal Santdas; Hiranand Nanumal; Baberbhai Chotabhai; Mukund Sadasaiv; Pandharinath Bhowanrao; Parbhuram Tuljaram; Khundanmal Karamchand; Abdul Latif Kaji Gulamal.

The following promotions are made in accordance with Govt. of India Resolution, dated 16th Jan. 1878.

The undermentioned Second Class Hosp. Assts. to be First Class Hosp. Assts. from 15th Oct. 1900 :—

Syed Abdul Rahiman; Bapuji Jadov; Shaik Gulab.

The undermentioned Third Class Hosp. Assts. to be Second Class Hosp. Assts. from 15th Oct. 1900 :—

Gajanan Krishna; Atmaram Bapuji Phurungkur; Ramkishandas Loharam; Dattatraya Ramchander; Chubermal Santdas; Hiranand Nanumal.

The undermentioned have passed the examination and are admitted into the Med. School, Hyderabad, from 1st Nov. 1900 :—

Bhopatrai Jethmal; Tabliram Dulomal; Mohamed Atta Valli Mohamed; Vasantroy Bhagwandas; Tharumal Tejmal; Udhaldas Khimolal; Samji Mengaji; Javantroy Shobharam; Kashinath Sakharam; Valji Parshotam; Satramdas Mayaram; Shivashanker Umadram; Bhagwandas Jhaverchand; Dularai Balwantrao; Hiralal Karunashanker; Virchand Damji; Gupatral Motiram.

The services of Temp. Hosp. Asst. Shaik Wazir Shaik Mohamed were entertained by the Special Med. Offr., Flacop Operations, Bombay, on picnic duty, on a salary of Rs. 40 per month, from the 28th Nov. 1900, and his services were dispensed with from the 29th Dec. 1900.

The undermentioned are re-admitted into the dent. as Hosp. Assts. as a temp. measure on a salary of Rs. 40 per month, and are placed at the disposal of the Sany. Commr. for the Govt. of Bombay, for famine duty under his orders :—

Balaji Shanker Nene; Nathalal Saharal; Chintal Purbhudas Patel.

The services of Temp. Hosp. Asst. Dhondu Nagaji Thaneekar were entertained by the Sany. Commr. for the Govt. of Bombay for famine duty from the 24th Sept. 1900.

The services of the undermentioned Hosp. Assts. temp. engaged by the Govt. of India, and lent to this Presidency under their orders for famine duty and travelling dispensaries were placed at the disposal of the Sany. Commr. for the Govt. of Bombay for such duties. Their services being no longer required have been dispensed with from the dates specified against their names :—

Amritlal Banerji, 4th Jan. 1901; Rosh Behari Ben Gupta, 7th Jan. 1901; T. Appanath Naidu, 12th Dec. 1900.

The services of the undermentioned Temp. Hosp. Assts. have been dispensed with from the dates mentioned against their names :—

Shanker Damodhur, 12th Dec. 1900; Balaji Shanker Nene, 17th Jan. 1901; Ramraso Hari Golwarkar, 31st Jan. 1901.

Hosp. Asst. Jamiatram Bhupatral, in ch. Dispy., Dohad, took ch. of the Mawla Relief Camp and Poor-house Hosp. in addn. to his own duties from the 7th Dec. 1900.

The services of the undermentioned Temp. Hosp. Assts. have been dispensed with from the date they gave over ch. of famine duty :—

M. S. Taptati; Atmaram Nilkant Pendse.

BENGAL.

The following Civil Hosp. Assts. of the Bengal Estab. have passed the Grade and English Qualification examinations held on the 15th April 1901 :—

Rakhal Chandra Datta; Atul Behari Banerjee; Akhil Chandra Mitra; Chandra Kumar Bhattacharjee; Nitia Nund Sircar; Nasamudden Syed Basharat Hussain; Elahi Bukeh; Tara Nath Chowdhury; Harabandhu Das Gupta; Khadim Ali; Hem Chandra Adhikary.

The notification granting one month's privilege leave to Milly. Asst. Surgn. J. B. Rodricks, Med. Offr., Eastern Bengal State Ry., Sara, is hereby cancelled.

The notification appointing Milly. Asst. Surgn. J. E. L. Obinal to act as Med. Offr. of the Eastern Bengal State Ry., Sara, during the absence, on leave, of Milly. Asst. Surgn. J. B. Rodricks, is hereby cancelled.

Dr. C. Banks, Supdt. of Emigration and Protector of Emigrants, Calcutta, is apptd. to act as Health Offr. of the Port of Calcutta, in addn. to his own duties, during the absence, on leave, of Dr. J. L. Hendly, or until further orders.

PUNJAB.

The following Med. Subordinates of the Hissar Dist. were placed in med. ch. of poor-houses opened in connection with famine operations, in addn. to their own duties, for the periods noted against their names :—

Asst. Surgn. Ramji Das, Poor-house, Sirsa,—27th May 1900 to 17th Sept. 1900.

Asst. Surgn. Ramji Lal, Poor-house, Hissar,—28th Oct. 1899 to 15th March 1900.

Asst. Surgn. Brij Lal, Poor-house, Bhiwani,—7th March 1900 to 30th Sept. 1900.

Hosp. Asst. Rughonath Mal, Poor-house, Hansi,—4th Nov. 1899 to 9th Sept. 1900.

Hosp. Asst. Alf Dia, Poor-house, Fatababad,—2nd Dec. 1899 to 1st Sept. 1900.

The following Hosp. Assts. were apptd. to the following plague inspn. posts from the dates noted against their names :—

Hosp. Asst. Ganga Sahai (Umballa), Tawi; Hosp. Asst. Dallava Nand Das (Umballa), Tawi; Hosp. Asst. Khirode Kumar Ghosh (Umballa), Tara Devi,—28th March 1901; Hosp. Asst. Mohendro Nath Mukerji (Kalka), Tara Devi,—1st April 1901.

On being relieved of plague inspn. duty at the Sigala road posts, the undermentioned Hosp. Assts. reported themselves to the Civil Surgn., Umballa, for gen. duty on the 5th April 1901 :—

Nur Mahi; Muhammad Shaffi; Hussain Ali; Khuda Bekah.

Milly. Asst. Surgn. H. V. W. Cox, Albert Victor Wing Mayo Hosp., Lahore, was apptd., as a tempy. measure, Asst. to the Civil Surgn., Lahore, from the 6th April 1901, vice Milly. Asst. Surgn. C. A. Owen.

On transfer from Bhakkar, Dera Ismail Khan Dist., Asst. Surgn. Parma Nand was placed on gen. duty at the Mayo Hosp., Lahore, from the 10th April 1901.

Hosp. Asst. Wali Muhammad reported himself to the Civil Surgn., Gujranwala, for gen. duty on the 8th April 1901.

Passed Med. Pupl. Ghulam Muhammad of the Lahore Med. School is admitted into the service of Government as a 3rd Class Hosp. Asst. from the 25th Feb. 1901, and was placed on gen. duty at Hoshiarpur from that date.

The undermentioned passed Med. Pupils of the Lahore Med. School are admitted into the service of Govt. as Hosp. Assts. from the 9th April 1901, and were apptd. to do gen. duty at the Mayo Hosp., Lahore, from that date :—

Ganga Bisben; Maya Das; Ahmad Bakhsh; Bashi Ram,

BURMA.

Hosp. Asst. D. Swami Dama made over, and Asst. Surgn. Shaik Abdul Latiff, on return from Rangoon after giving evidence in Court, assumed, ch. of duties as Med. Offr. of the Balween dist. on the 24th April 1901.

Hosp. Asst. C. D. Vadanayagam relinquished charge at the Civil Dispy., Maungdaw, Akyab dist., on the 25th April 1901, and assumed ch. at the Gen. Hosp., Akyab, on the 25th April 1901.

Hosp. Asst. N. O. Ghosh relinquished ch. at the Gen. Hosp., Akyab, on the forenoon of the 21st April 1901, and assumed ch. at the Civil Dispy., Maungdaw, Akyab dist., on the 25th April 1901.

The following Hosp. Assts. having qualified themselves for promotion to the next higher grade are entitled to the pay and allowances of that grade with effect from the date noted against them :—

Hosp. Asst. Syed Sajjid Hussain—promoted to the first grade from the 15th April 1901.

Hosp. Asst. J. M. Manickam Pillay—promoted to the second grade from the 31st July 1901.

The undermentioned passed med. pupils are apptd. Hosp. Assts. with English qualifications, with effect from the 1st April 1901, and posted to the stations noted against each :—

Maung Ni—Myingyan; Maung San Gaung—Ma-ubin; Maung Yaw Ba,—Tharawaddy.

Hosp. Asst. Maung San Gaung assumed ch. at the Jail Hosp., Ma-ubin, on the 1st May 1901.

Hosp. Asst. Ram Prasad Singha relinquished ch. at the Police Hosp., Mogaung, on the 30th April 1901, and assumed ch. at the Civil Hosp., Mogaung, on the same date.

Hosp. Asst. M. A. Anbaranam Pillay relinquished ch. at the Civil Hosp., Mogaung, on the 30th April 1901, and assumed ch. at the Police Hosp., Mogaung, on the same date.

Hosp. Asst. Gobind Ram, on transfer to Henzada, relinquished ch. at the Gen. Hosp., Rangoon, on the 29th April 1901.

Hosp. Asst. Anand Ram Nanda, on arrival from India, assumed ch. at the Gen. Hosp., Rangoon, on the 27th April 1901, as a supy.

Hosp. Asst. Shah Shair Ali, on arrival from India, assumed ch. at the Gen. Hosp., Rangoon, on the 1st May 1901, as a supy.

Hosp. Asst. Jagannath Prabharaj, on arrival from India, assumed ch. at the Gen. Hosp., Rangoon, on the 1st May 1901, as a supy.

Hosp. Asst. Syed Sajjid Hussain, on transfer to Pakokku, relinquished ch. at the Gen. Hosp., Rangoon, on the 13th April 1901.

Hosp. Asst. Gopi Chand assumed ch. at the Civil Hosp., Kalemoy, Upper Chindwin dist., on the 4th April 1901.

Hosp. Asst. Gopi Chand assumed ch. of adnl. duties at the Outpost Hosp., Kalemoy, Upper Chindwin dist., on the 4th April 1901.

Hosp. Asst. Behari Lal, on transfer to Kindat, relinquished ch. at the Gen. Hosp., Mandalay, on the 2nd May 1901.

Hosp. Asst. Abdul Bahim relinquished ch. at the Outpost Hosp., Sinlunkaba, Bhamo dist., on the 24th April 1901, and assumed ch. at the Police Hosp., Bhamo, on the 26th April 1901.

Hosp. Asst. A. B. Mukerjee relinquished ch. at the Police Hosp., Bhamo, on the 18th April 1901, and assumed ch. at the Outpost Hosp., Sinlunkaba, Bhamo dist., on the 24th April 1901.

Hosp. Asst. Mahomed Abdul Kureem relinquished ch. at the Police Hosp., Bhamo, on the 18th April 1901, and assumed ch. at the Outpost Hosp., Lweijibum, Bhamo dist., on the 22nd April 1901.

Hosp. Asst. Abdul Hussain relinquished ch. at the Police Hosp., Myitkyina, on the 18th April 1901, and assumed ch. at the Outpost Hosp., N'Krang, Myitkyina dist., on the 23rd April 1901.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

BIRTH.

PRUCE—At Purandhar, on 13th May 1901, the wife of Assistant Surgeon C. A. Puce, of a son.

ORIGINAL ARTICLES.

TRAPS AND PITFALLS IN SPECIAL AND GENERAL PRACTICE.*

By J. DUNDAS GRANT, M.D., EDIN., F.R.C.S., ENG.,

*Surgeon, Central London Throat and Ear Hospital ;
President of the Society.*

[AFTER some preliminary observations on the duties and advantages of the office of President of the Society, Dr. DUNDAS GRANT spoke as follows:]

Among the traps and pitfalls in general and special practice, some are slight, some serious, and they may be various in character, as they affect the individual in himself, in his business, financial, social, or professional relations.

In my Hunterian Society's oration, I expressed the opinion that in the practice of medicine there was enough to bring out whatever was best in any individual, if he allowed it to do so, whether his bent was scientific, literary, humanitarian, business-like, or philosophic. It may, however, from its engrossing nature, have the effect of warping and cramping his nature, so that he may lose interest in everything connected with mental, physical, social, or even moral culture, and degenerate into a mere drudge. Though this is a comparatively minor derelict, it is one greatly to be deplored. Dr. JOHNSON, in his dictionary, described lexicographers as "writers of dictionaries, harmless drudges." Happy is the medical practitioner who, as a drudge, can say to himself that he has been a harmless one.

THE BUSINESS OF PRACTICE.

Though many members of the profession are careful to a degree in regard to business matters, a very large proportion are in this respect deplorably negligent. The mere rendering and recovering outstanding accounts may seem a trivial matter, and negligence in regard to this may be due to the greater interest taken by the practitioner in making himself a good workman and increasing his professional reputation, rather than in collecting his fees. To show how indulgence with debtors may damage a reputation, I will recall a genuine case of a patient who owed her doctor a bill and was afraid to call him in, in case he should ask for it. What more natural than to summon another man, and when asked by neighbours why the medical attendant was changed, to attribute it to his carelessness, unskillfulness, or anything rather than the true cause? Again, the doctor's indulgence may lead to the patient "running up" an account which it is quite out of his power to pay.

It is as important for the practitioner to save as, for any ordinary citizen, but in his case there are a few special reasons for his endeavouring to make himself independent of temptations, to which the *res angusta domi* may render him liable, such as the multiplying of visits and consultations, or the performance of avoidable operations. What practitioner has not at some

time or other had to refuse the liberal payment offered him for the removal of the fertilised ovum? I say, then, that the medical man who thinks it unworthy of him to take the steps necessary for securing his financial position, allows himself to totter near most dangerous pitfalls.

I will only refer to the need of providing by insurance, investment, or otherwise, for times of professional depression, for accident, illness, and, still more, for old age. I hold that a man should endeavour to retire from practice before practice retires from him, whether he be induced to postpone his retirement by financial necessity, or by the mere love of his professional work. It is not uncommon to find elderly practitioners becoming disappointed, jealous, cantankerous, peevish, and even vituperative, who had formerly been open in manner, generous in judgment, and kindly in counsel.

A "BED CASE."

As an instance of minor temptation, I may narrate the case of a woman of about 50 years of age, who for twenty years was supposed never to have left her bed, having been brought to London from a distance under the influence of chloroform on account of some convulsive nervous disorder, presumably hysteria simulating cerebro-spinal meningitis. During these twenty years she was believed to have taken no solid food, and to have subsisted entirely on brandy and water. She was, however, rather plump than otherwise, and there can be no doubt that she got up in the night and visited the kitchen larder. She was subject to well-marked epileptiform attacks, in which neither touching the eyeball nor tickling the nasal mucous membrane produced any reflex reaction. A very striking feature in her physiognomy was the intense blackness beneath her eyes. Her chief complaints were retention of urine and the passage of a quantity of gravel which accumulated round the urinary meatus. On account of the former trouble, she was visited every second day by a medical man, who passed a catheter at each visit. When the patient came under my care, I had many searchings of heart as to how to deal with this strange combination of epilepsy, hysteria, and simulation, being doubtful how to steer between conscience, brutal downrightiness, possible errors of judgment, and tactful self-interest. I suggested the remarkable resemblance between the urinary sediment and the sand in the bird's cage, and as a result the "gravel" disappeared. I withheld the use of the catheter, with the result that the patient's father insisted on my returning and relieving her from the agonising pain which my omission had caused. One day, however, I found the blackness under the eyes extending down the dorsum of the nose, and by means of a wet towel I removed the blackness completely. Thus convinced of the fraud she was practising, I felt I could convict her also, and assured her that if she would get up and put on some clothes, which we borrowed from a neighbour, I would say nothing as to her deception, and simply mention it as a remarkable recovery. So distasteful to her and her family was her return to a reasonable, natural mode of life, that I got no thanks for what I had effected. I was simply informed that there was apparently no need for me to see the patient again, and I know that for subsequent illness in the house another

* Presidential address delivered before the Hunterian Society of London, and reproduced from the *British Medical Journal* by request.

medical man was called in my stead. How easy to exercise interested credulity and continue attendance in such a case as this.

INFECTION.

Exposure to infection and to inoculation with the virus or microbes of sepsis, tubercle, syphilis, or other diseases is so frequent, that the medical man ought to be constantly on his guard, especially in the way of cleanliness and tidiness in his manipulations. He should be most cautious to avoid abrasions or other injuries to the skin of his hands, and, above all, he should forswear that objectionable, but almost irresistible, habit of holding instruments in his mouth. I am sure it has often led to specific inoculation on the lips or tonsils.

Among the dangers besetting the medical practitioner on account of the peculiar circumstances in which he is necessarily placed is that of being charged with breaches of sexual propriety. Too great caution cannot be given to safeguard oneself by all possible means. That medical scandals are so few is eminently creditable to the profession.

I pass now to more purely technical traps and pitfalls; these beset the path of the general practitioner, consultant and specialist alike.

SPECIALISM.

I have to plead guilty to being a specialist, but I regret that the term "specialism" has unfortunately acquired a somewhat evil reputation, which I venture to consider accidental and by no means essential. The age is one of specialism. In the most ordinary manufactures, the work which is the most perfect of its kind is done by specialists. No man alone is expected to make a piano, a chair, or even a cushion, in its entirety; for I understand that it has been found that people who can sew buttons on cushions with the greatest rapidity and neatness, and to the greatest economical advantage, are those who confine themselves to this particular speciality in the cushion manufacture. In our sports, specialism is rampant; bowling, particularly if the artist has the advantage of being left-handed, is brought to the greatest perfection by those who devote themselves to this particular branch of cricket. In sum, it would be foolish to shut our eyes to the fact that continued and concentrated attention to one particular department of work is followed by a greater facility in its comprehension and application.

The late Sir WILLIAM SAVORY, in whom "the taint of specialism," if it may so be called, was as thoroughly wanting as it is possible for it to be, expressed himself as follows:—

"Now with regard to what is called specialism, let me say at once that I have no word to utter in disparagement of that form of it which consists in a man first of all studying and duly qualifying himself in the principles and practice of surgery as a whole, and then at length devoting his attention more especially to the cultivation of some particular part of it. This is not the form of specialism against which I would protest. In my humble opinion it is in no way an unworthy one, and if it were,

it is by no means frequent. It is no illustration of the law of division of labour as commonly understood, for excellence is not here obtained solely by exclusiveness. But the kind of specialism which should be denounced, and which it is to be feared is not very rare, is that which consists in the practice of some particular portion of surgery, without adequate attainment in, or continued study of, surgery as a whole."

Sir WILLIAM GOWESS, who in his own department of neurology is perhaps one of the most eminent and respected of specialists, has very properly drawn a distinction between "specialism" and "exclusivism," the latter being in reality the form of specialism to which scientific exception may justly be taken.

Where elaboration in the machinery and manipulation necessary for making accurate observations demands a special amount of mental and mechanical dexterity, it is impossible for this to be within the reach of those who are not prepared to devote an amount of time to its acquisition, which the pure all-round practitioner would be unable to give; and it would be unfair to deny to him, who has devoted that time, the credit for the special capabilities which this devotion has enabled him to attain. While doing this, it is, however, impossible that his acquaintance with the other departments of the remedial art should be kept up to the same standard of perfection, and indeed, unless he is ever watchful, these may and must diminish; indeed, the tendency is for his mental vision to become blurred so far as they are concerned, and he may almost be inclined to think that they do not exist because he has ceased to see them. It would indeed be an unhappy thing if sick humanity in its entirety were entrusted to specialists in whom this change had taken place; in every case they would most probably see either some ailment pertaining to their own speciality, or no ailment at all, and the possessor of a composite morbid organism would wander wildly from one to another, and would suffer much at the hands of many physicians, including surgeons and specialists of every form.

I deny, however, that this decadence need take an extreme form, for I believe that, on the contrary, the continued and anxious cultivation of the powers of observation and manipulation in a particular direction, as required in the practice of any semi-surgical speciality, leads to a sharpening of these faculties to some extent in every direction. Thus the mischievous tendency to which I have referred may be considerably weakened.

THE DEBT OF GENERAL MEDICINE TO SPECIALISM.

That general medicine has benefited by the works of specialists some may be disinclined to accept, but few will venture to deny. To take as an instance the introduction of laryngoscopy; history compels me to admit that its conception did not take place in the brain of a throat specialist, for indeed in its present form it was brought before the Royal Society in 1854 by that eminent nonagenarian MANUEL GARCIA. He was, however, from our point of view, a specialist, though a non-medical one, for he devoted his life to the study of the production of the musical voice. Previous to this, however, there exist records, of which this Society may be proud, of a

demonstration before it in 1829 by Dr. BENJAMIN GUY BARKINGTON, of a laryngoscope closely resembling the instrument now in general use, which, when introduced through the mouth, enabled the observer to see the glottis and the movements of the vocal cords, illumination being effected by means of a hand mirror. The popularisation of the use of the laryngoscope, in general medicine is, however, to be credited to the specialists, among whom we have no greater name to record in this country than that of the late Sir MORELL MACKENZIE. The laryngoscope is not the monopoly of specialists, but it will be readily admitted that it is to them that its wide use is chiefly due.

I need hardly remind you of the value of the laryngoscope in the detection of aneurisms and other growths in the interior of the thorax; it is less well known that occasionally there occurs, as one of the earliest signs of locomotor ataxy, paralysis of the muscles of one or other or both vocal cords. Asthma is another disease, in the treatment of which general medicine owes much to the specialist, and every practitioner in diseases of the nose must have before his mind cases in which the treatment of the nasal cavity has resulted in long and even permanent relief from the suffering depending upon this disease. Sir FELIX SEMON has indeed said that only a small percentage of the large number of cases of asthma which were at one time brought to him by physicians were traceable to nasal disease or relieved by nasal treatment. His experience, however, has been exceptional, for a reason not far to seek. At the time when attention was first drawn to the dependence of asthma in a certain number of cases, at least, upon nasal disease, Sir FELIX SEMON already had in so high a degree the confidence of physicians at large that cases of asthma were brought to him in large numbers, on the supposition that he was to find nasal disease in them all. He was naturally disappointed at the inevitable result in a considerable proportion of the cases. At the present time physicians make a rational search for nasal symptoms, and when such are present or suspected, then only are the patients brought before the notice of the rhinologist, and under such circumstances the percentage of beneficial results is by no means a contemptible one.

The study of ophthalmoscopy has in the same way contributed enormously to the powers of diagnosis of the practitioner of medicine, and I need only recall how the changes in the optic disc have led to the detection of cerebral tumours, now amenable to operation; how tubercle of the choroid may be observed, and how also the changes in the retina may indicate incipient disease of the kidney. Many cases of unexplainable failure of health and pyrexia are now rightly traced to a suppurative disease of the dental alveoli, and headaches not otherwise amenable to treatment have been relieved by the correction of errors of refraction; the adaptation of prismatic lenses, or the removal of hypertrophies of the middle turbinated bodies—results which general medicine cannot afford to despise.

THE DEBT OF SPECIALISM TO GENERAL MEDICINE.

On the other hand, the special branches have equally often benefited by advances in general medicine; thus, to

take an instance from the speciality with which I am most familiar, deafness and hoarseness have been traceable to the presence of myxodema, and to have yielded to the internal administration of thyroid gland, as they could not have done had the general condition been overlooked. Gout and rheumatism often play havoc with the middle and internal ear, and their influence in the case would be overlooked were the evidences of the cachexia not sought for. One of the most intractable forms of disease producing deafness—namely, the so-called dry or sclerotic catarrh of the middle ear—depends upon an arthritic fixation of the stapes in the fenestra ovalis, and in many instances the evidences of rheumatoid arthritis, such as grating of the shoulder, temporo-maxillary, or knee-joints, with cold sweats of the extremities, occurring in pale, delicate, young women, may indicate the nature of the affection long before the typical deformity of the joints has had time to show itself. Deafness becoming worse under local mechanical treatment of the ears is sometimes due to hysteria, whatever that mysterious disease may be, and the detection of such signs as comparative hemianesthesia, diminution of pharyngeal reflex, increase of patellar tendon reflex, narrowing of the field of vision, may, apart from the grosser evidences of loss of voice, or the typical hysterical fit, enable us to account for, and with more or less success to deal with the condition on which the deafness depends.

The additions made to our knowledge of disease of the nervous system help the specialist materially, and I may cite the comparatively recently discovered disease of the spinal cord—syringomyelia—one of the long unknown causes of paralysis in the region of the pharynx and larynx.

A familiarity with the symptoms indicative of the menopause are essential to the specialist who would successfully deal with diseases of the throat, and instances are constantly coming under our notice of disturbances of sensation in the throat, which cause the patient the greatest distress and anxiety, but are due entirely to the nervous disturbance incident to this period of life.

PHYSICAL EXAMINATION AND GENERAL OBSERVATION.

In special or consulting practice the tendency is perhaps to depend too much upon physical diagnosis, whereas in general practice the opposite is the case. No doubt the diagnosis of the disease may be approached from either standpoint, and thus, in a most valuable work on medical diagnosis, we find pneumonia classed among those diseases of the chest in which there is dulness on percussion. There are, however, many features which strike the family doctor before he has arrived at this stage in the examination, and delirium, rapid breathing, impaired oxygenation, and pyrexia may lead him to his diagnosis before he has attempted percussion or auscultation. The circumstances under which he works are more favourable to the investigation of rational rather than physical symptoms; in plain English, his patients have a great dislike to what they call being "pulled about." I remember, in being introduced to various patients by my predecessor in practice, I was

urged by him to avoid examining the heart of a certain elderly gentleman in whom this feeling was very strongly developed; but having come fresh from the hospital and keen on using the stethoscope, I felt that my duty towards the patient was not fulfilled unless I had investigated the heart. The result was as my sagacious introducer had anticipated, and the patient promptly sent for another doctor. This is an exaggerated instance, but the general principle is true, that the feelings of patients tend very strongly to discourage the use of the method of physical diagnosis on the part of general practitioners. On the other hand, I was once much galled by having omitted to make a physical examination in a patient suffering from what were simply the symptoms of dyspepsia; as my remedies afforded no relief, it was proposed that we should have the opinion of the late Dr. STEPHEN WARD; he at once detected a well-marked carcinomatous tumour of the stomach, and when I expressed my mortification at having overlooked it, he smiled, and said that as a young man no doubt I was keen with regard to physical diagnosis, indicating that old practitioners were much more indifferent.

It is unquestionable that far more errors have resulted from neglect of physical signs than from detective investigation of symptoms, and the acquisition of sympathetic tact in carrying out our physical examination is almost as indispensable as technical skill. The late Dr. WERT'S work on *Diseases of Children* contains in its opening chapters one of the most instructive and inspiring lessons on this subject I have ever read.

I presume that it has fallen to the lot of all to make with me such mistakes as diagnosing lumbago instead of aneurism of the abdominal aorta, catarrh of the uterus instead of suppuration in the Fallopian tubes, hæmorrhoids instead of epithelioma of the rectum, and, as I have said before, dyspepsia instead of carcinoma of the stomach. Many instructive lessons have been given me by physicians whom, during my time as a general practitioner, I have called into consultation.

Thus, a physician whose name was long associated with diseases of the stomach, came to investigate a case which appeared to be one of chronic disease of that organ. Somewhat to my surprise, he included in his examination not merely the rectum, but the uterus, and found a slight hardness of the cervix, to which at the time he did not think any great importance could be attributed, but which, nevertheless, required watching; the advisability of his careful examination was evidenced by the fact that within a year from that time the patient died with carcinoma of that organ.

Very early in my career I had considerable trouble with a case of what appeared to be a stricture of the œsophagus; the patient had great difficulty in swallowing, though this at times seemed to diminish; he wasted and suffered from distension of the abdomen, without actually any ascites. The late Sir ANDREW CLARK came in consultation, and in his presence I was able to push a large-sized œsophageal bougie into the stomach; he then proceeded to make a rectal examination, and thought he detected evidences of malignant disease in some

portion of the intestine external to the rectum. My fear was that there was a stricture of the œsophagus, and that it was cancerous; there was a stricture, and no doubt there was cancer, but the stricture of the œsophagus was spasmodic, and the cancer was in one of the abdominal organs. I remember a case presenting the symptoms of cancerous stricture of the œsophagus, which seemed a favourable one for gastrostomy, but Mr. MAYO COLLIER, on examining the abdomen, found evidence of carcinoma of the liver, and was able to pass a bougie down the œsophagus, the case being, in fact, practically identical with the one above described.

These two cases indicate the importance of examining under an anæsthetic before pronouncing any obstruction in the œsophagus to be impermeable. Dr. STEPHEN MACKENZIE has published several cases of this reflex spasm of the œsophagus associated with disease of the abdominal organs.

The following is an illustrative instance of a spasmodic affection simulating organic disease. An elderly medical man, complaining of pain and difficulty in swallowing, came to me in great anxiety, thinking he was the subject of cancer of the œsophagus. Having been formerly inoculated with syphilis, he had been treated by another surgeon for that disease, and the absence of benefit confirmed him in his opinion that his obstruction was malignant. Observing, however, that he was almost edentulous, and knowing that the swallowing of imperfectly masticated food may occasion the most extreme spasm of the larynx and œsophagus, I urged him to apply to the dentist for artificial teeth. In a fortnight he returned, smiling with a complete set of masticators, and assured me that every troublesome symptom had disappeared.

I have experienced difficulty in the diagnosis between alcoholism and commencing phthisis, especially in women; the prodromal rashes in the various fevers also are very apt to mislead, as, for instance, the scarlatina-form rash preceding the eruption of small-pox. Effusion into the labyrinth is constantly mistaken for a bilious attack, and I am informed by ophthalmologists that the same is true of glaucoma.

I regret to say that I have mistaken renal dyspnoea for asthma, only discovering when too late, for my remedies to be of avail, the real cause of suffering and danger.

Apical pneumonia may puzzle the most wary, and I remember a case which commenced like typhoid, the subsequent localisation of physical signs in the apex of the lung suggesting tuberculosis until the crisis rendered the diagnosis obvious to myself and to the consulting physician whom I had by this time called to my aid.

CONSULTING AND GENERAL PRACTICE.

This particular instance reminds me that the consultant has often a very great advantage over the family practitioner. Apart from the more leisurely and important nature of his investigation, there has often been time in the interval between his being summoned and his arriving for changes to take place which render the diagnosis easy; as, for instance, the morning or rash of measles explaining at once the convulsions which had been puzzling the

family practitioner, the crisis is pneumonia, the discharge is suppurative inflammation of the middle ear. I was formerly very much struck by the ease with which I seemed to arrive at the diagnosis in cases of obscure disease in which my neighbours did me the honour of calling me in consultation, as contrasted with the difficulties I had in analysing my own cases. I came to the conclusion that a man called into consultation with his mind screwed up to the pitch of concentration in a particular case, seeing it for the first time when its features were fairly developed, was in a much more favourable position for diagnosing it than he who had watched its gradual development from the outset, when its seriousness was not yet pronounced. There is need, then, for the charitable—I may say honourable—consideration on the part of the consultant towards the practitioner placed at such a comparative disadvantage. On the other hand, the ablest consultant is sometimes called in for a single examination of a case at a time when its nature is too obscure to allow of an absolute diagnosis; the family practitioner may at a later date witness the changes which may reveal its character, and form an unfair opinion as to the judgment of his colleague.

THE VALUE OF DRUGS.

The general practitioner has been charged with over-enthusiasm with regard to the value of drugs; the consultant, on the other hand, is credited with an equal tendency to scepticism. Either attitude is to be deplored, and I am convinced that the former is less regrettable than the latter. I postulate, however, the careful study of pharmacology with which the spirit of scepticism is absolutely incompatible. Making all allowances for individual idiosyncrasies, admitting further that much drugging that is practised is valuable on account of the "suggestion" which it conveys, I am convinced that the relief afforded to sufferers by practitioners who believe in drugs is far too great for any theoretical uncertainty as to the mode of action to justify that relegation of them to the realms of all things vain, which some superior persons seem to countenance. Scepticism diminishes and even disappears when the due selection of drugs is carefully studied. That too much is expected of them by many practitioners is undeniable, and in point of fact it is very easy to become over-enthusiastic about any particular drug or method of treatment, as the history of such drugs as aconite, phosphorus, and arsenic amply show.

VENESECTOMY.

Venesection is a method of treatment which has suffered both from neglect and from over-estimation. On one occasion I was attending a little girl through an attack of scarlet fever ending in acute nephritis, uræmic convulsions, and coma. I proposed venesection, and met with protests and the suggestion that a more experienced neighbour should be called into consultation. The result of the consultation was the advice on my friend's part that I should leave the venesection alone; that the child was going to die, and that if I did the operation the death would be attributed to it. In spite of this, the parents being convinced that nothing could

save the child, I got permission to do as I wished. The heart-beats, which had become almost imperceptible, became steadily stronger as the blood flowed from the vein; the patient recovered, and was alive and hearty many years afterwards. In a case of congestion of the lungs with distended veins following immersion and reanimation by means of artificial respiration, unconsciousness was rapidly developing. I practised venesection, consciousness returned, and a rapid recovery took place without the occurrence of pneumonia. The next and I believe the last occasion on which I performed venesection was soon after the last mentioned, when a patient suffering from dyspnoea, rapid breathing, and cough seemed to me to be likely to be benefited by withdrawal of blood. The case, however, turned out to be one of pulmonary tuberculosis, and the result of the loss of blood was to promote euthanasia at an earlier period than otherwise would have taken place. Regrettable as was the result in the last instance, I can recall no more brilliant recoveries from impending death than the two previous ones; and what I have said of venesection is, I am sure, true of many other of our remedial agents, if we had the determination to employ them judiciously.

PITFALLS IN GENERAL PRACTICE.

In looking back on the ten years of busy general practice which extended from 1877 to 1888, I almost shudder to think of the pitfalls which by luck I escaped. What became of the cases of appendicitis which ought to have occurred and died? Why had I no deaths due to extrauterine foetation? May I say, with Dr. JOHNSON, that it was simple ignorance? I do not think so. I never had occasion to break up the foetal head, and though I am not aware what the experience of others may be, I believe that by the timely practice of turning, followed by the application of forceps to the after-coming head, I have succeeded in delivering in what would otherwise have been cases of craniotomy.

In my intercourse as a general practitioner with consultants, I was often favourably impressed by those who, as physicians, strove to guard themselves from falling into surgical errors, and those who, as surgeons, gave due attention to the medical aspects of the case. In this way alone, it seemed to me, was the chance of error reduced to a minimum. I hold that, while the general practitioner should emulate the exactness of the consultant, the latter should at the same time try to look at the case from the point of view of the general practitioner. The former may be a scientist or artist in his particular line, but the latter is the typical healer of the sick, whose livelihood depends upon his affording cure, relief, or consolation—an ideal which should be foremost in the mind of whoever would succeed in the practice of the healing art.

In the light of what I have just said, you will, I am sure, agree with me that the traps into which both general and special practitioners are likely to fall are many and various—the former for want of "special" knowledge, and the latter for want of general regard to medical considerations. I shall quote in particular specially those cases which have come under my own observation;

and I shall in the first instance narrate a few instances of errors into which practitioners of general medicine might readily fall for want of special knowledge.

The following is a concrete example: A young woman with many signs of phthisis—cough, expectoration, disturbance of digestion, loss of appetite, and general wasting—was sent to Bournemouth for treatment of her supposed pulmonary tubercles. My friend Dr. DAVISON was unable to detect the physical signs in the chest required to complete the diagnosis, but he discovered a purulent nasal discharge associated with the presence of multiple polypi of small size. He directed the patient to return to London and place herself under my care. I was able to restore the nose to a reasonably normal condition, with the result that all the phthisical symptoms disappeared, and Dr. DAVISON's opinion was absolutely confirmed. Similar cases have been observed in which the primary disease was suppurative in one or more of the sinuses of the nose, producing the quasi-phthisical condition to which French writers have given the name of "*pseudophthisie*."

Nothing is more terrifying to specialists in laryngology than the comparative indifference with which a persistent hoarseness is viewed by many general practitioners, the specialists well knowing that this is often the only symptom present at the early and tractable stage of epithelioma of the vocal cords. The practitioner is too apt to be biased by the absence of pain and of the "cancerous cachexia," a fetish to which too many lives have been sacrificed. How often, too, has an aneurism of the aorta been overlooked, when an examination with the laryngoscope would have rendered the diagnosis plain.

PITFALLS IN SPECIAL PRACTICE.

There are, however, traps of the most insidious description into which specialists are apt to fall, either from want of general knowledge, or from the self-sufficient disregard for general medical consideration. I may quote a case of dryness of the throat, such as a specialist is very apt to attribute to nasal obstruction, and in which on the first visit I entirely overlooked the real cause; whereas on the second one I luckily made an examination of the urine, and found ample evidence of diabetes mellitus. Habitual epistaxis, again, is in most instances to be treated by a localised cauterisation of the so-called "seat of election" on the antero-inferior portion of the nasal septum, but the specialist who fails to examine the urine for albumen is sure to be led into error at some time or another.

Perhaps the most dangerous trap of all is in relation to the question of hæmoptysis. There is no doubt that cases have occurred in which the hæmoptysis has arisen from rupture of a small vein in the pharynx, or it may be at the root of the tongue, and the knowledge of these few cases has too often raised hope ("immortal in the human breast") that a visit to the throat specialist might result in the discovery of some such comparatively trivial cause for the dreaded symptom. I as well as others have fallen into this trap, and have had the mortification of seeing a patient return with unmistakable

evidence of phthisis, for whose hæmoptysis I had too cleverly cauterised some suspicious vessels. I am quite convinced that the very last thing one ought to expect to find as a cause of hæmoptysis is such a local hæmorrhage as I have mentioned. It is most exceptional for this to arise from any other cause than incipient pulmonary tuberculosis. A medical friend brought his son to me on account of hæmoptysis, full of hope that I should find a cause for it in the upper part of the throat. With great distrust I carefully examined the throat and discovered nothing accountable for the bleeding, but on examination of the chest I was able to find, as I expected, sufficient evidence of tuberculous disease of the right apex to lead me to refer my friend to a physician more skilled in diseases of the chest than myself. On another occasion a medical friend brought a cousin who had had a distinct hæmoptysis some two days before; history again repeated itself. The throat revealed no lesion, but I heard unmistakable crepitation at the right apex. I advised an examination of the morning sputum and a consultation with a more skilled physician. Two days later the crepitations had entirely disappeared, and the physician found absolutely no signs of disease of the lung, but the sputum contained bacilli, and the patient has since had two breakdowns, requiring repeated sojourns at Davos Platz. I may say in passing that mistakes sometimes result from omission to auscultate behind (over the apex of the inferior lobe) as well as in front.

Another trap was a case of considerable interest. A gentleman of advanced middle-age had returned from India, and was advised to consult me on account of what was supposed to be tuberculosis of the larynx, the most marked symptoms being cough, hoarseness, and wasting. On laryngoscopic examination there was a slight congestion of the vocal cords, but absolutely nothing characteristic of laryngeal phthisis. The patient was indeed considerably emaciated, but there was a yellowish tinge of the conjunctivæ which suggested hepatic trouble. On inquiry, I elicited that he was subject to shivering attacks every afternoon, and I ventured to make a diagnosis of tropical abscess of the liver—a diagnosis which was subsequently confirmed.

I may quote a case to illustrate the subject of myxœdema to which I have already referred—namely, that of a middle-aged woman who was sent from the Midlands to consult me some years ago on account of deafness. Her voice was somewhat monotonous, and there was just sufficient characteristic peculiarity in the physiognomy to enable one who was familiar with myxœdema to recognise it. I therefore wrote to her medical attendant advising that the patient should consume thyroid glands of sheep. Within three days I received a telegram to say that the patient was apparently dying, hardly breathing, with the pulse so soft and quick that it could not be counted. In the interval I had made myself acquainted with information concerning the physiological action of thyroid glands, and telegraphed at once instructions to stop the thyroid glands and to administer digitalis and ammonia. A letter arrived to say that although the patient had been so seriously ill the hearing had quite

recovered, and at the present time, thanks to the more discreet ingestion of the thyroid gland, she is in the best of health.

Some considerations with regard to enlargement of the thyroid gland ought to be at the disposal of those who treat diseases of the throat, and I have been saved from error by the recollection of certain cases observed during my period of practice in the East End of London, at the time when it was more customary for the wives and families of seafaring men to live there, before the railway afforded the present facilities for residing at a greater distance from the docks. In several instances under my observation the wives of sailors came to me on account of enlargement of the thyroid gland, which diminished under the internal administration of those valuable sexual sedatives, potassium bromide and camphor, and disappeared entirely soon after the return of the husband. Recently a married lady of robust full-blooded type was brought to me on account of an enlargement of the thyroid gland. I was able on close inquiry to elicit that, from motives of economy, in spite of strong mutual attachment, marital relations had for a considerable time been allowed to lapse completely, and the origin of the thyroid enlargement was thus explained.

This illustration of the bearing of general medical observation on special practice reminds me of a form of deafness which merits your attention. Mr. JONATHAN HUTCHINSON has described the amblyopia of young husbands, and I have in several cases observed the analogous occurrence of a marked degree of nerve deafness in men similar circumstanced. Excess for the individual in solitary indulgence is a frequent cause of nerve deafness in males, as direct interrogation and the results of reform clearly prove. In the female the same cause no doubt constantly prevails, but I am not aware of any means of detecting the existence of the injurious habits which is not open to objection.

A curious instance of a trap for the specialist was the case of a male child of about 10 months old, brought to me on account of attacks of suffocation attributed to some obstruction in the throat. On inquiry, I elicited that the attacks were characterised by evidences of intense nervous excitement, culminating in a climax followed by intense depression approaching collapse. This closely answered to the description of the orgasm given in Braun's work on diseases of children, under the heading of infantile masturbation, that I ventured to diagnose it as such, the father confirming my opinion by the observation that during the attacks there was obvious priapism. I found an elongated and tight prepuce, and recommended circumcision with, as I afterwards heard, the most satisfactory result.

SPECIALISM AND MEDICAL EDUCATION.

It has been proposed to include examination in the so-called special subjects among the requirements for medical qualification. There can be no doubt as to the correctness of this position, as I think some of the incidents which I have narrated amply prove. This will not, however, make every legally qualified practitioner a specialist in one or every subject, but it will do for the

public more than the creation of any number of specialists, if it raises the standard of medical education all round. The bane of specialism is self-sufficiency, and the general practitioner also is sometimes not altogether free from this defect; but with increased education in the direction that I have just indicated, he will exercise a wholesome check upon the specialist, who will find that he is no longer dealing with an ignorant person to whom he may lay down the law at his own sweet will, but with a well-equipped colleague who, if he is not so accurately informed in regard to the one special portion of the human organisation, is as well, or probably better, acquainted with its general workings, and able to take a wider grasp of the situation than the pure specialist may be able to do. I am confident that humanity has suffered from the arrogation of special knowledge of a limited department of medical science, on the assumption that the general practitioner is proportionately ignorant. With increased education on the part of general practitioners, and more active competition among specialists, this evil has been minimised, and to a great extent eradicated; that it may be completely so is a consummation devoutly to be desired, both for the sake of sufferers, the credit of the profession, and the self-respect of all practitioners, both general and special.

Gentlemen, if I have seemed to give instances in which I have escaped falling into traps, I have given them because I feel that my escape was a very narrow one, and I trust the cases are illustrative and instructive. Were I to give you a detailed list of the traps into which I know I have fallen, I should occupy a much longer space of time than I am justified in doing, and I doubt not that for every trap I have escaped I have fallen into a dozen. I can only hope that those who have suffered by my ignorance may not bear too large a proportion, compared with those who have benefited by my experience of the traps and pitfalls into which I have fallen, as well as those from which I have only by luck escaped. Until the human knowledge approximates to the Divine, we must expect to make mistakes. If the specialist keeps his mind open for the instruction which he may derive from the general practitioner, the list of mistakes will be all the fewer, and those which are committed all the more excusable.

SYPHILIS AS A NON-VENEREAL DISEASE, WITH A PLEA FOR THE LEGAL CONTROL OF SYPHILIS.*

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SYPHILIS is a great disease, which has ravished the world for centuries, and has counted its victims by tens and hundreds of thousands. It is a contagious disease, always communicated from one individual to another by direct or indirect means—or transmitted through inheritance—and yet, to-day, there is scarcely any restraint placed upon its continued spread by individual propagation over the whole world.

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Advancing civilisation has recognised one after another the contagious or infectious maladies which afflict mankind, and the arm of the law has come in to protect the defenceless, and we no longer have the wholesale sweep of epidemics which occurred before health boards were organised and given control of these matters. This is often accomplished at the sacrifice of the comfort and, it would often seem, the rights of individuals; but the principle of the "greatest good for the greatest number" prevails, and those who unhappily may become afflicted with any of the maladies coming under the jurisdiction of the health boards are often obliged to sacrifice all personal interest for the benefit of those around them.

Why is it that syphilis, which has always been recognised as an intensely contagious disease, in certain of its stages and manifestations, has to such a great extent been allowed to pursue its unbridled course, attacking alike the innocent as well as those guilty of sexual transgression? Why is it that thousands, yes hundreds of thousands, of innocent and trusting wives, and helpless and blameless children have had to suffer for the sins of others? Why is it that syphilis has thus been allowed to spread its ravages unchecked by the hand of advancing science and broad philanthropy?

I need not answer these questions, for I am convinced that all of my hearers know full well the reason. But, thanks to the light of accumulated knowledge and experience, the shame which has too often checked discussions of the subject, and hampered the efforts of many who, from time to time, in various countries, have tried to stem the tide of this disease, need no longer have an influence. I hope to give you facts and show you reasons which will make every one present feel and know that the disease (syphilis) should and must now have a check put upon its ravages—and my plea will rest, as the title of my paper indicates, upon the vast "army of innocents" who plead for protection from a disease which may attack them when least expected, and may often extend its malign effects through years, and even to succeeding generations.

It is not a little interesting to note that when the disease burst out with such frightful severity in the years 1494 and 1495, at a date closely following the discovery of America, and about the time of the invasion of Italy by CHARLES VIII of France, it was not by any means considered as a venereal affection, but spread so greatly among families and in neighbourhoods that it was regarded as a form of plague; many laws were therefore enacted for the protection of the community against what was considered as a new disease which had appeared among them. Also later, even in the sixteenth and seventeenth centuries, we find laws regarding those afflicted with syphilis, prohibiting them from the use of public baths, and even preventing them from coming into general assemblies, etc., and some of the measures taken to hinder the spread of the disease were harsh in the extreme.

I will not attempt in any way to go into the legal aspect of the case, either historically or practically, for time and space would fail me on an occasion like this; legal action will follow when once the public is convinced that there is a danger which can be thus avoided.

Mention was made of legal restrictions of the disease exercised long ago, in order to call attention to the fact that when syphilis was regarded as a general malady, not necessarily connected with the sexual act, there was great attention paid to its control; but now in later years, since it has been regarded more and more as a venereal disease, it has been ignored and left to pursue its destructive way unchecked by sanitary control. The height of the folly culminated in the silly agitation in England which terminated in 1881, with the repeal of the "Contagious Diseases Acts," which had wrought such beneficial results from 1864 till 1881, as English doctors at that time testified, and as every medical man knows.

As already intimated, the pendulum of knowledge has swung the other way, and during the last twenty-five years or so a mass of facts has been steadily accumulating, which again calls attention to the aspect of the innocent infection by syphilis, and which demands that the thoughts of those who make laws for the protection of the public shall be again turned to the disease. The data referring to this "Syphilis in the Innocent," the present writer has been collecting for the past ten years and has recently embodied in a volume,* to which further reference will be made in our discussion of the subject.

The basis of our present argument is as follows: As long as syphilis is regarded exclusively as a venereal disease, it is and will be extremely difficult to obtain adequate legislation for its control; whereas, if it can be shown to be one from which the general and innocent public should be protected, there will be little difficulty in meeting and solving the question; "it is the hope of the writer that the present paper, with the discussion which may follow, will be the means of such agitation as will result in the ultimate adoption of laws which will in a measure control syphilis in this country.

In order, therefore, to properly understand and appreciate the task before us, it will be necessary to enter into some details in regard to the present extent of syphilis, its modes of propagation in times past, including many episodes which were called epidemics, on account of the large numbers innocently affected in a brief period, and finally to the modes of propagation of the disease in late years by other than unlawful venereal acts. These matters I will endeavor to present as concisely as possible.

WORLD-WIDE DISTRIBUTION OF SYPHILIS.

A word first in regard to the general distribution of syphilis in the world.

Many have written from time to time as to the antiquity of syphilis as a disease, even from the most ancient times, and bones exhumed here and there have seemed to show that it has prevailed for ages, as also records in Chinese literature point back to its existence at least 2000 years B. C. But for practical purposes most studies of syphilis go back only four hundred years to the period mentioned, 1494 and 1495, and, as all know, it was charged that the followers of COLUMBUS brought

1. Bulkley: Syphilis in the Innocent (syphilis innoxium). Clinical and Historically Considered with a Plan for the Legal Control of the Disease. New York, Bailey & Fishkill, 1894.

the disease to Europe from the Western lands. Since 1494 the disease has spread, apparently *de novo*, until now; according to the best writers there is hardly a portion of the inhabited globe where it does not exist with more or less virulence. It is stated that in Russia at least one-quarter of the inhabitants in some villages are infected, and all writers agree that there it is mostly spread in an innocent manner, mainly in family life, as will be mentioned later, for prostitution is almost unknown in the villages.

In Great Britain and Ireland it prevails widely in the great cities and ports, favored by the neglect of all restrictions on prostitution. Dr. HOLLAND in 1864 estimated that in the United Kingdom there were at least a million and a half persons infected with syphilis each year.

Japan and China are so full of it, that Dr. ELDRIDGE states that it is very exceptional to meet a male Japanese who will not acknowledge that at some time he has had syphilis, and in the French Hospital at Tien-Tsin, China, almost 30 per cent. of all cases were of this disease.

Time fails even to touch on its prevalence in various other countries, but, as stated before, syphilis exists almost universally, and, according to the best authorities, it is steadily on the increase.

There are no data to determine the extent of its prevalence in the United States, but any one familiar with dispensary and hospital work here will vouch for the very great amount of it seen in daily life. The statistics collected by the American Dermatological Association, relating to some 300,000 cases of skin disease, give a percentage of 11.5 due to syphilis. Some years ago Dr. STURGIS collected the returns from the public institutions in New York City, and estimated that the numbers newly infected there with syphilis could not be far from 50,000 each year.

In the earlier history of medicine, in the sixteenth century, and later, there occurred, as already alluded to, such sudden spreadings of syphilis on certain occasions that the name epidemic has been rightly given to them. The earliest of these epidemics, of which we have a good account, occurred in the town of Brunn in Moravia, where there were 180 directly infected in the town and others in outlying districts. The infection took place by means of cupping and blood-letting as practised by the public town barber, and no mention is made of its conveyance by venereal acts. These epidemics of syphilis I tabulated from literature, collecting 110 of them, with a total number of considerably over three thousand victims. This is quite exclusive of those episodes where it is stated that there were "a large number infected." Included among the causes as a means of conveyance of the poison in these sad occurrences may be mentioned nursing, hand raising of infants, domestic transmission by household utensils, kissing, breast-drawing, accouchement; also by cupping, blood-letting, circumcision, vaccination, tattooing, glass-blowing, the application of the tongue to the eye to remove foreign bodies, catheterising the Eustachian tube, etc.; and even as late as 1892 no less than twenty-seven cases of infection of this nature were reported by

one physician, and in Paris, in 1870, there were over seventy reported where the poison was conveyed to the Eustachian tube accidentally by one practitioner in the treatment of diseases of the ear—this resulted from gross carelessness on the part of the physician.

Time would fail me even to hint at the mass of material which has been brought to light in regard to the modes and methods by which syphilis has been innocently given to individuals, even up to the present time, and often in spite of great care being exercised.

The three great classes or divisions of the subject to which I wish briefly to call your attention are: (1) Marital syphilis; (2) Hereditary syphilis; (3) Extragenital, innocent syphilis.

MARITAL SYPHILIS.

The subject of marital syphilis has been very fully discussed by a number of writers, and all acquainted with the subject know well that this mode of infection stands prominent in connection with the innocent acquiring of the disease. While men occasionally contract syphilis innocently in lawful wedlock, even indeed from wives who have acquired it in nursing a syphilitic child, or in some other innocent manner, it is principally the wives who suffer, from the sins of their husbands, before or after marriage, and on them falls a large share of the burden of "innocent syphilis."

FOURNIER, of Paris, recently made some studies from the cases of syphilis coming to him in private practice. He found that fully 25 per cent. of all females whom he had seen in private practice had contracted the disease innocently and undeservedly, and in the discussion of his paper, RICORD thought that that proportion was too low. Of the married females in FOURNIER'S practice, he found that in 75 per cent. of the cases the disease was unmistakably traced to the husband.

In my own private practice I found that in fully 50 per cent. of the females the disease was acquired in a perfectly innocent manner, while among the married females the percentage of innocent infections would be 85 per cent. or more.

Surely, then, there is reason in the plea that something should be done to prevent the wholesale infection of these innocent victims of marital syphilis. But if this aspect of the subject is dark, that of hereditary syphilis is yet darker, and calls even more strongly for relief.

HEREDITARY SYPHILIS.

The literature of hereditary syphilis is very large, and the facts related to it are well known to the profession. Time and space will allow of but the briefest mention. We may for a moment first refer to the effect of the poison upon the viability of children born of syphilitic parents. I cannot do better than to refer to some very striking tables given by STURGIS in an appendix to DIDAY'S work on infantile syphilis. They are from the records of births of syphilitic children at the Moscow Hospital, Russia, from 1860 till 1870. During these years there were 2,002 such births, and 1,425 deaths; that is, 71 per cent. of the children born there of syphilitic

parents died. Other writers are in accord as to the very great death-rate among those born of syphilitic parents.

It is to be remembered also that syphilis is the cause of innumerable abortions, and also produces sterility, both in the male and female. If, therefore, the effects of syphilis were limited solely to destruction of life in the new-born, or in the products of conception, there would be a strong reason for the introduction of measures to check the spread of the disease from its loss of life to the State. But this is only a portion of the ill-wrought by syphilis in connection with generation, and it would be better that children of syphilitic parents should thus fall of life, rather than be born with an inheritance which often proves such a curse.

TARNOWSKY has recently given us some interesting facts which could easily be more or less paralleled from others. In three families born of syphilitic parents, there was a total of 22 births; of these, there came only one healthy adult person. Of 13 who survived some years, 8 were incapable of self-support from mental or physical defects, and the other 5 were weak, nervous and totally unfit for further procreation. He states that the families in which this occurred belonged to the intelligent class of society, with no other cause than syphilis for these disastrous results. He quotes further, from TCHISTIAKOW, the case of a man who had severe syphilis in early life, destroying the palate, of whose nine children two were idiots, one was deaf and dumb, and one died in infancy. The works of HUTCHINSON and many others give abundant testimony as to the direful effects of syphilis on the progeny of those thus affected.

Thus the army of innocents swells in size and pleads for the restriction of a disease which it is now believed may sometimes be inherited even to the third generation. What the later effects of syphilis may be in producing some of the conditions commonly known as scrofula, and in inducing race-degeneration, cannot now be answered positively. We know, however, that it has at times decimated our American Indian tribes, and has wrought unspeakable havoc in Russia, in the Hawaiian Islands, and elsewhere.

EXTRAGENITAL SYPHILIS.

The third division of our subject, namely, extragenital infection, or syphilis acquired quite apart from any sexual relations, is one of the most interesting lines of investigation possible, and has been illustrated by thousands of recorded cases, reported by many hundreds of observers. I may remark that nearly 200 cases of this kind have fallen under my own personal observation and care.

Time and space again forbid any more than lightly touching upon a few of the outside facts relating to this branch of our subject, but a slight classification of the facts may help us to a better understanding of the vastness of the subject, and its very, or most, important bearings upon the health of the community, and the dangers from syphilis.

ACQUISITION OF SYPHILIS.

The cases referring to the different methods of acquiring syphilis accidentally, apart from sexual life, as actually observed at the present time by every one who has opportunities and experience in this line, may be grouped under three main catalogues: 1. Those relating to domestic and industrial life. 2. Those relating to the nourishment and care of children. 3. Those relating to professional pursuits in the care of the sick.

Under the first class we find the instances of transmission finally classified into almost fifty groups, relating to the most different phases and aspects of domestic and social life. Not only has syphilis actually been given by spoons, knives, forks, cups, glasses and jugs, but it also has been communicated by tobacco pipes, cigars, cigarettes and even by troches or candy passed from mouth to mouth; also by shirts, drawers, masks, plasters, bandages, lint, towels, sponges, combs, tooth-brushes, syringes, sick-chairs, etc. Among those who have acquired it in industrial life, that is, innocently in connection with their occupation, we may mention glass-blowers, assayers, weavers, musicians, conductors (by whistles), servants, cooks, furriers, upholsterers, shoemakers, and others.

The second class, representing syphilis acquired through the nutrition or care of children, includes literally thousands of cases where the disease has been innocently acquired by suckling syphilitic children at the breast, and innumerable cases where the nurses and attendants have acquired it by contact with the syphilitic secretions of infants, and where diseased children have communicated the disease to each other.

In the third class, relating to professional body service in connection with the care of the sick, we find three divisions: (1) where the operator is the victim; (2) where the operator is the syphilitic, or gives it from himself to a patient; and (3) where the operator is the medium of conveying the disease from one patient to another.

Under the first class we find hundreds of cases where physicians, surgeons, and midwives have become infected in the practice of their calling. Large numbers of cases are on record where breast-drawers and wound-suckers have acquired the disease.

In the second class we find many records of those who have had syphilis giving the disease to others by body service, as in breast-drawing, tattooing, circumcision, vaccination, etc.

In the third class the operator acts as a medium conveying the position from one patient to another. Here we find a sad array of cases of infection by skin-grafting, vaccination, through dental instruments, by wet-cupping, tattooing, the use of the Eustachian catheter, etc.

LEGAL CONTROL OF SYPHILIS.

I have thus hurriedly, and necessarily very briefly, run over a few of the points relating to our subject, illustrating the propriety of my "plea for the legal control of syphilis based on its frequency in the innocent."

the details necessary to a full understanding of it would take many, many pages and occupy as many hours. I beg now to present a brief argument for, and a statement of the method and mode of, the legal control of syphilis which I think is feasible at the present time.

From what has preceded, it is readily understood that syphilis is a disease which inflicts great injury upon the public health; for it imperils not only those who have been guilty of sexual transgressions, but also those who are quite innocent, and it is upon the basis of protection for the latter that I believe legal action should be taken.

While syphilis occurs most frequently as a "venereal disease," its prophylaxis or legal restraint by no means relates to the restriction of venereal diseases; the limitation of the spread of syphilis should be considered from a much broader and higher standpoint, namely, from that of defending the public health and that of individuals against a malady which affects the innocent and guilty alike, and which comes to the innocent not only when its dangers are anticipated, but also when they are least suspected.

In the matter of legal protection against syphilis, therefore, the subject of prostitution becomes a secondary consideration. The question is not one of "regulating prostitution," or of inspecting, licensing, or legalising the "social evil," or of protecting those engaged in it. We approach it from a higher ground, and seek to have some restriction put on a disease which is dangerous and communicable, and which might at any time attack any one in a wholly innocent and unexpected manner. That the spread of syphilis can be checked is self-evident, as has been conclusively proved by the fact that all the epidemics to which reference has been made were averted when the cause was recognised and sufficient measures introduced to prevent the further transference of the poison from one person to another. It is also abundantly shown in certain instances where foreign Governments have in some places enforced stringent measures looking in this direction.

We know positively that the poison does not and cannot develop *de novo*, but that it is always communicated from one individual to another. We know also that within a certain period syphilis ceases to be contagious in each individual; so that if no new infection is introduced into a community, and the members of that community are guarded against acquiring the disease from one already infected until that safe period is reached, the malady will cease to exist.

Such precautions are exercised both by the public and by individuals against other contagious diseases, such as small-pox, scarlatina, measles, diphtheria, yellow fever, etc.; is it not eminently proper that syphilis should be placed in the same category, and protection should be afforded to the innocent against it? Syphilis counts its victims, guilty and innocent, by thousands, where other diseases count hundreds. More deaths are ultimately caused by syphilis than by small-pox, while the injury to health, and interference with life work is infinitely greater in the former than in the latter. The conclusion

is absolute: syphilis should be placed, like other contagious diseases, under the control of the health authorities.

In this country, as far as known, there have never been any sanitary safeguards against the spread of syphilis, and there are very few hospital advantages for those thus affected. In most cities in Europe, there are large accommodations for this class of patients, amounting in Paris to between one and two thousand beds. New York has but a relatively small service at the City Hospital, while the vast majority of syphilitic patients are treated at the dispensaries, and are allowed to go about, often in an extremely contagious condition. It would be difficult to convey an idea of the carelessness and indifference of some of these patients when informed of the dangers to others from their disease. Many, indeed, by far the larger share of them, disappear from treatment long before their syphilis is cured; and generally even while they are in the contagious stage of their disease.

The republican ideas of this country would probably not endorse or submit to such sanitary police inspection and restraint as is exercised in many places in Europe; but the question naturally arises: Is there not some way in which the end can be reached of arresting the spread of this dangerous disease? Can there be no safeguards thrown out which shall prevent its extension here as it has spread in certain countries in Europe, such as Russia, where whole communities have been syphilitised, and Portugal and Japan, where the disease is well-nigh universal?

The first step toward accomplishing the legal control of syphilis would undoubtedly be found in placing it among other contagious diseases which come under the jurisdiction of the health officers; indeed, the wonder is that it has not been so placed long ago.

If syphilis were first recognised as one of the great contagious diseases, against which it is the duty of the Government to protect the community, the details of that protection would follow with time, as they have in regard to other contagious diseases; as the public became aware of the dangers arising from syphilis, and the benefits accruing from its restriction, there would be no difficulty in securing proper laws relating to the subject.

The suggestion, therefore, is most earnestly put forward that the time has certainly come when the dangers of syphilis, and especially the dangers to innocent persons, should be fully and fairly recognised and met. It is too late in the history of science and of humanity to stigmatise the disease as "venereal," and on that account to withhold scientific protection from thousands of innocent sufferers. Among babies, nursing women, persons infected in dental and surgical operations, and in dozens of other innocent manners, syphilis can no more be described as venereal than can any other contagious disease. The time has come to place it under the control of the proper health officers, and to make it quite as criminal to transmit syphilis willingly, as it is to communicate small-pox, scarlatina or diphtheria. It is believed that if only syphilis can be included on the list of contagious diseases which the health boards can control, proper legislation will follow slowly as the profession and public become more enlightened as to the real nature of syphilis and the real danger to the public from it.

chronic gastric catarrh which has been present throughout her illness, and indeed for some time previously.

The fourth case, that of Mrs. H., is somewhat obscured by the presence of complications, viz., hæmorrhage: 1½ pints in the fourth week, and subsequently the onset of a hypostatic pneumonia. However, the occurrence of the rigors did not mark the onset of complications, but, occurring on the 54th and 57th days of her illness, they seemed to usher in a more satisfactory convalescence. She was in the Grosvenor Hospital from March 15th, 1900, to May 20th.

The significance of the rigors in the last three cases cited seems to me to be decidedly obscure. In these cases their occurrence did not seem appreciably to interfere with the natural progress of the case, and, indeed, in two of the cases, they seemed to be rather the starting point of a more satisfactory condition of affairs.

ULCER OF STOMACH: ACUTE HÆMATEMESIS: GASTROTOMY: ARREST OF HÆMORRHAGE AT THE BLEEDING SPOT: VENOUS THROMBOSIS IN BOTH LEGS: RECOVERY.

BY H. BRANTON ANGUS, M.B., M.S.,

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THE following case is of interest, because it raises the question of the surgical treatment of hæmatemesis due to gastric ulcer:—

S. S., aged 19, a domestic servant, was admitted into the Newcastle Royal Infirmary on December 15th, 1900, suffering from hæmatemesis.

History.—She had suffered from epigastric pain, coming on two hours after taking food, for the last twelve months. She had vomited the contents of her stomach after severe attacks of pain, but never to her knowledge any blood. On December 14th, at 11 P.M., she went to bed without any pain, although two hours previously she had had some. She was awakened by a feeling of nausea, vomited a large quantity of bright red blood, and then fainted. A doctor saw her and ordered her immediate removal to the hospital. She was admitted at 3 A.M. on December 15th, and vomited a large quantity of bright red blood in the accident room.

Condition on admission.—She was a fairly well-nourished woman, but very bleached, with a pulse of 88, and weak. She was free from pain, but apathetic. Except for a little tenderness over the epigastrium on deep pressure, there was nothing abnormal to be detected.

Diagnosis.—Gastric ulcer, with erosion of a large arterial branch.

Operation.—On December 15th, at 3-30 A.M., chloroform was administered, and a median incision was made from the ensiform to the umbilicus. The pylorus and anterior surface of the stomach were examined without detecting anything abnormal. On tearing open the lesser omentum, an indurated patch was felt on the posterior surface of the stomach near the lesser curvature, not

far from the pyloric end. The affected part could not be withdrawn from the abdomen, so the surrounding area was packed off, and an incision 3 inches in length was made in the axis of the stomach and in its posterior wall. A small punched out ulcer, the size of a three-penny-piece, with a little surrounding induration, was seen, and there was recent blood clot in it. Owing to the difficulty of access, the only way to control the bleeding in this area was to pass a purse-string catgut suture around the ulcer, and then obliterate it by tying it tightly. The opening in the stomach was then closed, first by a continuous catgut suture traversing all the coats of the stomach and so rendering the wound water-tight, then by a row of interrupted LEMBERT sutures (catgut) covering any protruding mucous membrane. No drainage was used, and the abdominal wound was closed by a row of silk-worm-gut sutures traversing all the layers of the abdominal wall. Strychnine gr. i. was given hypodermically during the operation, which was well borne.

Subsequent history.—The patient, though very weak, soon became comfortable; the temperature was normal, but the pulse kept over 100. As soon as the chloroform sickness passed off, she was given hot water by the mouth, and then equal parts of barley water and milk, at first in small quantities; nutrient enemata were ordered as well. On December 20th feeding was entirely stomachic, namely, barley water, milk, chicken, tea. On December 26th the sutures were removed, and, except for a small abscess in the abdominal wall, due to a suture, the incision was healed. On December 28th the pulse was 132, the temperature 100.4°F.; she was complaining of pain in the pelvis, and vomited a little clear fluid. On December 30th the pulse was 120, the temperature 101.3°F., and she complained of pain in the left leg, and there was tenderness in the course of the internal and external saphenous veins. The leg and foot were white and swollen. On January 4th, 1901, the left leg was still white and oedematous, but was improving; pain commenced in the right calf, and the leg was swollen and oedematous. On January 7th the right calf was very painful, the foot and leg oedematous, and there was great tenderness over the right saphenous opening. The left leg was much improved, the pulse 132, and the temperature 102°F. She complained of pain in the lower part of the abdomen; the bowels were loose. On February 5th the patient had been getting up for a few days. She was losing her anæmic appearance and eating ordinary diet without pain. There was slight oedema in the lower part of the legs at the back after she had been up. Her pulse was 86 (sitting). She was discharged on this date.

Remarks.—It has fallen to my lot to witness two post-mortem examinations on patients who have died from hæmatemesis secondary to gastric ulceration. In both cases large vessels were found eroded with visible holes in them—in one case the gastro-duodenal artery. The clinical history of each was the same—namely, recurrent copious hæmorrhages, which resisted all medical treatment. It seems to me that there are two classes of these cases which demand surgical aid:—(1) When hæmatemesis is often repeated till it is threatening life; (2) copious recurrent arterial hæmorrhage. Surgeons

must expect to find considerable difficulty in locating the site of the bleeding, especially when the ulcers are multiple. In cases where a large vessel is eroded, only surgical treatment can save the patient's life.

Another point of interest in the case is the occurrence of venous thrombosis in the saphenous veins of both limbs. Are we to regard this as of septic or aseptic origin? By aseptic I mean thrombosis due to clotting from a feeble heart's action and a watery condition of the blood. My colleague, Mr. W. G. RICHARDSON, has collected many cases of thrombosis following abdominal operations, typhoid fever, *post-partum* hæmorrhage, etc. They were mostly anæmic from loss of blood, and there was a remarkable coincidence in the onset of thrombosis—namely, ten to fourteen days after the loss, and often on the patient getting up. Again, certain sites seemed to be chosen, which would suggest some additional mechanical factor—namely, the popliteal vein (flexion of the knee), saphenous opening, the common iliac veins, especially the left (pressure of a loaded bowel). The course of these cases suggested that the origin was not a septic one:—(1) Because constitutional disturbance was slight; (2) there was no pus formation; (3) they soon recovered, and the vascular channels became re-established.

ASCITES DUE TO CIRRHOSIS OF THE LIVER.

By DADABHOY P. PESTONJEE, G.E.M.S.,

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NURSAYA, aged 39, a cultivator, was admitted into hospital on the 1st June 1895 with a history of malaria and marked alcoholism. For nearly three years he had noticed his belly swelling gradually, and six months previously was attacked with jaundice.

Present condition.—The patient was weak and anæmic: eyes sunken: face full and rounded: œdema of the lower extremities, penis and scrotum: general dropsy, the skin pitting all over on pressure: abdomen enlarged and tense: distinct fluctuation on palpation: liver felt to be enlarged, and on percussion the liver dullness commenced in the fifth space and ran 3" below the ribs: on palpation the surface was found rough and the edge rounded. Bases of the lung and the heart were displaced upwards, but the heart sounds were normal. The urine was scanty, high coloured, and contained a little albumen. The spleen was enlarged to double its size.

Diagnosis.—Hypertrophic cirrhosis of the liver and portal obstruction.

Treatment.—Alcohol was absolutely stopped: the patient was put on a light diet. On the supposition that there might be a syphilitic factor, mercury and iodides were given: then digitalis with iron and quinine were tried. As hydragogue purgatives and diuretics proved absolutely ineffectual in reducing the ascites, whereas under them the strength of the patient was still further exhausted, tapping was performed repeatedly. To this only do I attribute the survival of the patient for five

years. The following table indicating the tappings may be of interest:—

No.	Date.	Amount of Fluid drawn.
1	1st June 1895	900 oz. of straw-colour fluid.
2	22nd Sep. 1895.	740 do. do.
3	28th Jan. 1896.	850 do. do.
4	28th April 1896.	780 do. do.
5	19th Nov. 1898.	950 do. do.
6	13th March 1899.	850 do. do.
7	17th July 1899.	750 do. do.
8	11th Sep. 1899.	675 do. do.
9	9th Nov. 1899.	650 do. do.
10	7th Jan. 1900.	650 do. do.
11	5th April 1900.	745 do. do.
12	19th June 1900.	650 do. do.
13	8th August 1900.	850 do. do.
14	15th October 1900.	650 do. do.
15	2nd Dec. 1900.	750 do. do.

It will appear that the patient had not less than 15 tappings during the course of 5½ years: the last occasion was on the 2nd December 1900, after which the patient sank rapidly, cerebral symptoms, coma and delirium supervened, and he died on the 8th January 1901.

Autopsy.—Firm bands of adhesions of the omentum to the abdominal wall traversed by small-sized vessels; liver much enlarged, extending from the right to the left hypochondrial region and overlapping the spleen, which was also much enlarged. The capsule of the liver was thickened, and that organ weighed 82 ounces, being 11" long and 8" broad: it contained a large amount of nodular fibrous tissue, and was deeply stained with bile.

PAINLESS CALCULUS PYONEPHROSIS.*

By JOHN SMYTH, MAJOR, I. M. S.,

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MR.—, aged 50, consulted me on January 10th, 1898, for what he thought was cystitis. In 1892 he had had a perineal (urinary) abscess, which was incised in India. Late that year he had had an external urethrotomy performed in Dublin. For some time before this, and ever since, he had been passing pus in the urine, but at no time had he pain either in the bladder or in the regions of the kidneys. A noteworthy point in his history was that, after violent exercise, such as a game of rackets, the quantity of pus passed in the urine was greater, and on a few such occasions it was tinged with blood. There was no renal tumour. His general health was excellent, and he indulged in all kinds of games; his sole trouble was the constant evacuation of pus, which caused him great anxiety, as he thought that, healthy as he felt, there must be something very wrong with him. For six years he had been washing out his bladder almost daily, with no benefit. I examined him with the cystoscope, and at once found thick pus running from the left ureter, like mustard from a syringe, the stream of pus alternating with fairly clear urine. No abnormal matter flowed from the right ureter. My note taken at the time concluded as follows: The diagnosis of chronic pyelitis is now clear, the cause is obscure; the painlessness is against calculus, yet one often finds calculi in the kidneys in the *post-mortem* room which gave no trouble during life. Why not likewise here? I accordingly stated as my opinion that there was calculus of the left kidney. The kidney was removed soon after by Mr. FENWICK, and the patient is now in excellent health.

* Reproduced from *British Medical Journal*.

Indian Medical Record.

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GASTRIC ULCER: ITS COMPLICATIONS AND THEIR TREATMENT.

IN a clinical lecture delivered recently at the Leeds General Infirmary, and published in the *British Medical Journal*, Mr. A. W. ROBSON, F.R.C.S., Senior Surgeon to the Infirmary, and Emeritus Professor of Surgery in the Yorkshire College of the Victoria University, dealt interestingly with the subject of the Complications of Gastric Ulcer and their Treatment. We give the essentials. Excluding specific ulcers due to tubercle syphilis and malignant disease, the speaker classified the forms of ulcer of the stomach thus:—

I. EROSIONS.

Subdivided by DUBUROY into (a) *Simple Erosions*.—Mere abrasions, but yet likely to give rise to most alarming hæmorrhage: often overlooked at *post-mortem*: when hæmorrhage is in progress, it may be seen as numerous bleeding points. (b) *Exulceratio Simplex*.—More extensive: the arterioles under the muscularis mucosæ being exposed, might give rise to terrible hæmorrhages, proving rapidly fatal unless arrested by treatment.

II. SIMPLE ULCER.

Subdivided by CROUVILLIER into: (a) *The Acute Round Ulcer*: ofteneest found in young chlorotic women, leading to profuse hæmorrhage and perforation. (b) *The Chronic Form*.—Irregular in outline, with thickened edges: said to occur in the ratio of 72 per cent. in males, but in the speaker's experience divided about equally between males and females. There cannot be a hard-and-fast line between the varieties of I and II.

SYMPTOMS.

Pain after food, vomiting and tenderness at the epigastrium: hæmatemeses and vomiting not necessarily a symptom. In 20 per cent. of cases symptoms were entirely latent, hence in peritoneal catastrophe the idea of perforation of gastric ulcer should not be ignored. The speaker cited three such cases in his experience.

DIAGNOSIS.

Pain.—According to the site of pain, the time of its onset, and the effect of posture on it, the position of the ulcer could often be ascertained, e.g., ulcer on the posterior wall was often relieved by the prone position; on the anterior wall by dorsal decubitus: if at the pylorus, the patient was easier on his left side: if at the cardiac extremity, on the right side: in most latent ulcers the erosion was at the lesser curvature, a little distance away from the cardiac orifice: as food is taken in the erect posture, this part would be least likely to be irritated, hence the latency. Ulcer close to the cardiac orifice would cause pain immediately after food: one near the pylorus an hour or two after food: if on the anterior surface of the stomach, there was well-marked tenderness

at the epigastrium: if on the posterior, epigastric tenderness was less distinct, but a tender spot was easily found at a point on the left side of the twelfth dorsal vertebra. The absence of HCl favoured diagnosis of cancer; its presence that of ulcer: vomiting relieved pain in ulcer, not always so in cancer: a yeasty smell was characteristic of dilated stomach, a habitual fætid odour of cancer and a fæculent odour of intestinal obstruction. Blood in the vomit, if small in quantity and of coffee-ground appearance, indicated cancer: if profuse and clotted, ulcer—but this was not positive. It was important to ascertain the size and shape of the stomach, the presence of hour-glass contraction, the situation of the upper and lower borders, and the approximate position and thickness of the pylorus. This was best done by administering first a small teaspoonful of tartaric acid in half a tumbler of water, followed by a similar quantity of bicarbonate of soda in half a tumbler of water: the stomach was soon distended by CO₂. A tumour was suggestive of cancer, but in chronic ulcer a considerable tumour might form. Further, cancer was a disease of months; whereas ulcer with tumour one of years. Moreover, in the former the tumour was nodular and manipulated freely; and in the latter smoother and markedly tender: cachexia and loss of flesh were present in both, but more marked and earlier in onset in cancer. There were certain cases in which diagnosis could only be confirmed by exploratory incision. Before proceeding to this, these two questions should be capable of being answered in the affirmative—(1) Can an exploratory operation be performed without adding seriously to the risk of loss of life? (2) Is it possible that good will result from the exploration?

COMPLICATIONS.

These were: (a) Perforation of the stomach wall. (b) General peritonitis. (c) Hæmatemeses. (d) Melaena. (e) Perigastritis ending in suppuration. (f) Perigastritis producing adhesions. (g) Subphrenic abscess. (h) Tumour of pylorus or stomach. (i) Contraction of pylorus. (j) Dilatation of stomach. (k) Hour-glass contraction. (l) Fistula between stomach and adjoining organs. (m) Atonic motor deficiency. (n) Severe gastralgia. (o) Persistent vomiting. (p) Tetany. (q) Acute or chronic pancreatitis. (r) Abscess of liver. (s) Chronic hepatitis. (t) Profound anæmia. (u) Pressure on or stricture of bile ducts with jaundice. (v) Catarrh of gall-bladder from adhesions. (w) Great loss of flesh and strength, ending in phthisis. (x) Cancer secondary to ulcer.

TREATMENT.

At first this was essentially medical, and if carried out for a sufficient time, was usually completely successful: but often the treatment was not persevered in, and ultimately surgical treatment was in many cases the only method capable of affording relief. In every case of gastric ulcer the treatment should always be continued for a very much longer period than is at present considered necessary, and on no account should a patient be allowed to get up or to resume solid diet until all pain and tenderness had disappeared for at least a fortnight. Surgically, in the treatment of gastric ulcer, the mortality in the speaker's practice had been under five per cent., and he was fully convinced that at no distant time this mortality in

all operations for simple as contrasted with malignant diseases of the stomach would be not more, but probably less, than five per cent. Although the lecturer had once thought that the surgical treatment of gastric ulcer was *sub-judice*, he could now say that, in the greater number of cases, it was the only satisfactory method, and that operation should be resorted to at a much earlier period than had hitherto been the custom, and certainly always before patients were so far reduced by pain and starvation, or the supervention of serious complications, that their weakened condition rendered any operation a serious matter.

Gastro-enterostomy was of all operations the one to rely on in the treatment of gastric ulcer, preferably the posterior operation.

Excision of the ulcer was usually unnecessary, but not always to be avoided.

Pyloroplasty, if the pylorus was stenosed, free from extensive adhesions, easily drawn forward, and not actively ulcerating, was a simple and short operation: but it should not be performed where the pylorus was actively ulcerating unless the ulcer was excised, else contraction would occur and further operation be necessary.

Pylorotomy was an unnecessarily severe operation, and presented no advantage over gastro-enterostomy.

Pylorodiosis, or stretching of the pyloric sphincter, would be abandoned, as it was more dangerous and less satisfactory than gastro-enterostomy.

Perforation was one of the most serious complications, and occurred in about 15 per cent. of all cases of ulcer of the stomach. Many perforations doubtless recovered if the accident happened when the stomach was empty; but the speaker did not place much reliance on the probabilities of this occurring. It was so rare, it could not be relied on, and even in cases of doubt it was better to do an exploratory operation quite early, for it was now perfectly recognised that of cases operated on within a few hours, the greater number recover, but of those operated on at a later period, the larger number die. When perforation caused an abscess, if in the posterior wall, the abscess would be found on the left side of the suspensory ligament of the liver: if in the anterior wall, the abscess would be on the right side of that ligament, forming respectively a right and left subdiaphragmatic abscess.

Hæmorrhage from the stomach, the result of ulceration, was a very common event, occurring in 80 per cent. of all cases of gastric ulcer. It might be arterial, venous, or capillary, and the last may be so free as to resemble bleeding from a large arterial trunk. The lecturer, from a careful study of all reported cases, as well as from personal experience, concluded that acute hæmatemesis should be treated medicinally, but that surgical treatment should be adopted in recurring acute as well as chronic hæmorrhage.

In cicatricial contraction of the pylorus, with active ulceration, gastro-enterostomy was probably the best operation, as it could be performed quickly, and the drainage of the stomach led to a cure of the ulcer. If the tumour were nodular, pylorotomy was advisable.

Occasionally dilatation might form so marked a feature that, after performing pyloroplasty, it was necessary to contract the size of the stomach: this could be done by taking up folds in the anterior wall by a series of sutures. *Gastroplication*.—This operation would also be useful in some cases of atonic dilatation without pyloric stenosis: it was quite useless unless all contraction at the pylorus was removed. The operation was simple, and should not be attended by any mortality, as there were no risks of septic infection from opened viscera.

Hour-glass contraction.—This was produced by a chronic ulcer in the middle of the stomach: the ulcer in healing gave rise to the formation of fibrous tissue, which contracted, and if the process had been going on for years, the greater curvature gradually got drawn up towards the lesser, leading to the formation of two, or, in some rare cases, even three, cavities in the stomach communicating through narrow channels. It was commoner than usually imagined, and might also be produced by cancer. When dependent upon ulcer, three methods of treatment were open: (a) *Gastroplasty*, usually preferable, and with which the speaker had obtained the best of results, which consisted in laying open the stricture longitudinally and bringing the edges of the wound together transversely over a very large bone bobbin. (b) *Gastro-enterostomy* and (c) *Gastro-gastrostomy*, or uniting the two stomach cavities by a new channel. Adhesions alone might also give rise to hour-glass contraction, and this of course was remedied by dividing such adhesions.

Perigastritis (Gastrolisis).—This was a very common complication of ulcer of the stomach, and was Nature's conservative effort to prevent perforation. The adhesions thus formed might, however, be troublesome, producing dilatation of the stomach in cholelithiasis due to adhesions between the gall-bladder and pylorus, the pylorus being contracted by them and held at too high a level, thus retarding the passage of food into the duodenum: adhesions also occurred as the result of pyloric ulceration, and in such cases well-marked stenosis was usually present. The operation of detaching adhesions of the pylorus and stomach might well be termed "gastrolisis." In cases of perforation in which omental adhesions have effectually occluded the opening and so saved the patients from acute general peritonitis, to detach such adhesions simply would jeopardise the life of patients, and so other means, such as pyloroplasty, must be resorted to at the same time. Wherever adhesions were very extensive and likely to speedily recur, it was better to short-circuit the obstruction, so as to give the benefit of an alternate route and so prevent a relapse. The lecturer did not deal with any other complications on this occasion.

BARBER-SURGEONS AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Medical Review has an excellent article on this subject, from which we call the following notes:—

The Royal College of Surgeons of England and the Worshipful Company of Barber-Surgeons have recently exchanged courtesies after a period of estrangement which has lasted since 1745. Sir WILLIAM MACCORMAC received the Freedom of the Barber-Surgeons, and

in an interesting speech reviewed the histories of our two corporations and of their French equivalents. Much light is, indeed, thrown upon the latter part of the subject by a chapter in "An Idler in Old France," in which a lay writer, THOMAS HOPKINS, discusses the history of the French barber-surgeons. In France, says a French philosophic writer, whom he quotes: "*La chirurgie a été créée par les barbiers; ceci est hors de doute.*" Every surgeon whose memory science has preserved to us was a member of the humble corporation of barbiers." The good and great AMBROISE PARE was himself at one time a barber's apprentice. He arrived in Paris in 1532, and at about being initiated into the mysteries of shaving, hair-dressing, and poulticing, and, on becoming a master of his trade in 1536, opened a shop under the barber-surgeons' sign of the three basins. In the intervals of his trade he probably studied at the hospitals, and during the wars of FRANCIS I., he gained that knowledge of wounds and fractures which renders him the father of modern surgery, but none the less it was as a barber that he started in life. As such, he was illiterate, that is, without Latinity, and we find him deploring, in the dedication of one of his books, that "It hath not pleased God so much grace to grant me that in youth I should have been based in Greek and Latin!" It was only by "a discreet process of dissimulation and a grave infraction of rules" that PARE received his cap and his degree from the French College of Surgeons of that day. He was attached to the persons of successive kings, and was one of the few intimates of CHARLES IX., whom that monarch was able to save from the horrors of the St. Bartholomew Massacre. CHARLES IX.'s successor, HENRY III., so valued PARE, that through him the whole body of surgeons came into favour. FRANCIS I. had created a Faculty of Surgery in 1544, with privileges not inferior to those of the University of Paris. His decree was renewed by HENRY III., who further gave the surgeons permission to open a course of public lectures. The physicians who had long sided with the barbers as against the surgeons, now lent the shaving fraternity "two good and notable reading doctors," who should translate to them from the Latin into the French, "all hard meanings in the anatomists." For many years the humble barber-surgeons, who had thus begun to learn anatomy in good earnest, were a pawn in the game played by the *chirurgiens jurés*, or surgeons proper, and the Faculty of Medicine. The church had long been an enemy to all wielders of the knife, on the ground that "*Ecclesia abhorret a sanguine*," but in 1579 Pope GREGORY XIII. was so far seduced by the French surgeons as to take them under the protection of Rome by papal bull. The Faculty of Medicine appealed to the University of Paris, and the University maintained that the Bull could not be authentic. Thereupon the surgeons produced a certificate of its genuineness, signed "by three bankers of Paris." Appeals were made both to Pope and *Parlement*, but without result, and at the close of the sixteenth century we still find the surgeons presenting themselves to take the ancient oath of fealty and allegiance to the Faculty.

The barbers meanwhile kept quietly in the background, enjoying the translations from Latin of the "notable reading doctors," and missing no word of such courses of lectures as the Faculty deigned to dole out to them in the mother-tongue. Sometimes their teachers so far sided with them as to volunteer information, and a learned doctor who had made bold to deliver a course upon "respiration" to the poor barbers was brought before the notice of the *Parlement* by the Faculty. The doctors held that barbers had nothing to do with respiration, and on being asked by *Parlement* to define the limits of surgery, answered off-hand that it was a manual art concerned only with the reparation, the re-uniting, and the excision of parts.

In 1624 LOUIS XIII. allowed the barbers to impale the *fleur-de-lys* on their shield, on the ground that his birth-day was also the fête of their patrons—Saints COME and DAMIEN. Later, when the Faculty of Medicine was levelling its thunders against the doctrine of the Circulation of the Blood and its English discoverer, WILLIAM HARVEY, the surgeons stole a march upon the doctors and captured the barbers. Indeed, they abused themselves the better to conquer, for they well knew that the best operators were barber-surgeons—not surgeons proper—and they could not afford to allow so much talent to thrive outside their own ranks and under the ægis of medicine. The surgeons, bat in hand, petitioned the barbers to receive them among them! The union was effected: the surgeons gained skilled coadjutors, and the despised barbers rose at a bound to the rank of *savants*, men who, if they did not speak Latin, at least associated with colleagues who did. *Parlement* ratified the alliance, but the Faculty raged to undo it, and from 1655 to 1660 there was war to the knife between Physic and Surgery. GUY PATIN, incomparable letter-writer and controversialist, and *frondeur* to the backbone, strove, as Dean of the Faculty, to render null and void what the surgeons and the barbers had effected. "We cannot prevent there being surgeons at Saint Côme," said he, "nor can we prevent them from forming a league with the barbers. What we want is that there should be, as heretofore, one company or society of surgeon-barbers, dependent on, and drawing their authority from, our Faculty, tendering the oath of fidelity every year in our schools, and paying the customary fees." The Medical Faculty of PATIN's day shared to the full the prevailing feudal contempt for all who used their hands or wielded any instrument save the pen. The doctor would have felt infinitely disgraced had he been obliged to dissect or even to bleed. Such a degrading condescension would have put him on the level of a mere artisan or painter of pictures.

In 1660 Physic won the day on appealing to the servile *Parlement*. The surgeons and the barbers were stripped bare of cap, gown, college, and the right of conferring degrees. However, the fates were on their side, for in 1686 the *Grand Monarque* fell ill and positively required surgical assistance. After long debate his body-surgeon, FELIX, was allowed to operate upon him in the presence of Madame DE MAINTENON PÈRE LA CHAISE, the chief physician, and four apothecaries. FELIX was successful, and the King's illness and the surgeon's operation even became fashionable. The "Great Operation" became the vogue. FELIX was ennobled and greatly enriched, and from that day forward his followers began to outstrip their rivals, the physicians. The surgeons built an amphitheatre, and in 1699 were granted the rank of professors of a liberal art. MARRIACAL succeeded FELIX in 1703, and, in his zeal for his calling, at length even won LOUIS XV. to his side. The young King founded five new professorships at the surgical stronghold of Saint Côme. The physicians made one last effort to assert their dignity. They marched in procession to the doors of Saint Côme, wearing their full robes and headed by their dean, carrying a skeleton in his arms. They were met and turned back by the inextinguishable laughter of the surgeons and students crowding every window. In 1731 the surgeons, once "contemptible mechanics," were raised to the dignity of an academy, and thenceforward shared with the physicians both reverses and successes. In the dark days of the Revolution they, together with the physicians, were abolished as being a "*congrégation laïque*," but in 1794 they were reinstated, and in 1808 were incorporated, together with their ancient rivals, in the University of France.

COMMENTS AND NEWS.

CAUSES AND TREATMENT OF ANEMIA.

DR. RALPH STOOKMAN, M.D., F.R.C.P., Ellin., Regius Professor of Materia Medica and Therapeutics in the University of Glasgow, contributes to the *Medical Brief* a useful article on the Causes and Treatment of Anæmia. We extract the essentials. The subject is dealt with under three heads:—

A. Chlorosis.—The diagnosis was not difficult, for though no one symptom of the disease was characteristic, yet the whole picture clinically was such as could not well be mistaken. The first attack usually occurred between the ages of 16 and 25 and rarely after 25. There was a marked reduction in the amount of hæmoglobin in the blood, with generally a fall in the red blood corpuscles: the complexion is therefore pale white in blondes and greenish white in brunettes; the patients also tend to accumulate fat owing to deficient oxydation: languor and breathlessness: dislike for exertion, but under excitement a chlorotic girl would often dance a whole evening without any special suffering: digestion disturbed with obstinate constipation, though this was by no means invariable: often depraved appetite for such substances as chalk, linen and coal: murmurs in the heart and jugular veins: urine pale and abundant, with diminished solids: disorders of menstruation very often present, scanty menstruation or amenorrhœa being the most frequent condition. The cause of chlorosis was still a subject of argument and controversy. The author's opinion was that the condition resulted from loss of blood, or from insufficient ingestion of iron in the food, or from both combined. The total amount of iron in the body was only about 35 grains, the daily intake with a full diet of meat was in men only $\frac{1}{4}$ of a grain, in women about $\frac{1}{8}$ of a grain, while the output was about the same. Many girls ate very little, containing about $\frac{1}{16}$ grain iron or less, and this, combined with the menstrual loss of iron in the blood, gradually resulted in a deficiency of hæmoglobin and the onset of chlorosis. Excessive menstruation might produce the same result. The amenorrhœa was therefore a protective measure against further blood deterioration. This complaint was commonest in young growing girls, because the strain thrown on them at puberty was severe and often resulted in loss of appetite and other forms of indigestion, so that they ate very little. The onset of menstruation added to the strain, and further deprived the body of blood and iron.

Treatment.—Iron. As a rule, the least irritating preparations, especially reduced iron; about 3 to 5 grains metallic iron should be given daily two or three times immediately after meals, best in pill or capsule, as solutions spoil the teeth. The author had little faith in the much advertised organic preparations of iron. The iron was absorbed from the bowel, and in the liver was worked up into organic compounds which ultimately became hæmoglobin; only a very small amount was absorbed from the bowel, but to give it the best chance of absorption, a fairly large amount should be taken, but not too excessive. Small doses of arsenic were also useful, combined with iron, stimulating the bone marrow, the great blood-forming organ, and inducing a more rapid regeneration of the blood. In obstinate cases residence at a high altitude stimulated blood formation. If possible, the diet should be full—meat, fruit and vegetables: if stomach disordered, milk and farinaceous food should be given: good general surroundings, fresh air and exercise: if much

breathlessness, avoidance of exertion. Leucorrhœa, menorrhagia and other blood loss and constipation should be attended to, otherwise relapses would occur.

B. Pernicious anæmia.—Less common than chlorosis. By some it was considered idiopathic, but the author thought that it followed on some antecedent condition, sometimes detectable, but sometimes not. There was great diminution in the number of blood corpuscles which were much misshapen: peculiar lemon coloured skin: extreme breathlessness: œdema of face and legs: internal and external hæmorrhages: febrile attacks. It occurred after all acute diseases. The author believed that once a certain degree of anæmia had been established, numerous small hæmorrhages began to occur, and their persistence led to the extreme poverty of blood.

Treatment.—Was extremely disappointing: the lines were much the same as in chlorosis. If intestinal worms be suspected as the cause, they should be removed. Piles and loss of blood in other ways and diarrhœa should be actively treated: a warm elevated climate was best, with fresh air and avoidance of exertion. Amongst drugs, arsenic was most trustworthy in stimulating the formation of blood corpuscles: five minims of FOWLER'S solution thrice daily after meals. In nearly every case, however, the improvement was temporary only, as in a few months the blood returned to its previous impoverished condition: iron also was usually useless: gastrointestinal lavage had been well spoken of: the author had not met with success from red bone marrow or transfusion of blood. Altogether, the therapeutics of pernicious anæmia were in a somewhat hopeless condition, and most cases must be regarded as almost necessarily fatal.

C. Leukæmia.—A similar condition of things prevailed. There was a large increase of white blood corpuscles accompanied by diminution of the red. The same treatment as in pernicious anæmia proved usually temporarily successful, but the disease always tended to a fatal termination.

EXPERIMENTS AT THE DUFFERIN HOSPITAL, CALCUTTA.

THE *Indian Daily News* says:—The failure of an experiment in the ordinary course of things is not a valid ground for its abandonment; but there are in this, as in all other things terrestrial, exceptions. If the result of an experiment exclusively demonstrates that the elements used in the test are not yet sufficiently developed or matured to make a successful issue possible, prudence and economy would surely urge the operator to postpone a further trial until such time as he could count upon a reasonable increase of success in his researches. If he persists and continues to work with the same materials, and with no deeper knowledge than he possessed at his first attempt, the chances are more than ever that he will continue to arrive at precisely the same result, and will not advance his work in the very least degree. Such an experiment is, we hold, being conducted in connection with the Dufferin Hospital, and we now propose to enter into a few details of both the experiment and its failure. It is a truism that Corporations have no conscience; but it is deplorable when the Committee of a hospital has no heart. We are led to make these remarks, partly by a letter which has appeared lately in a Calcutta contemporary, pointing out that the rules of the Dufferin Committee keep the Dufferin Hospital in Ambaret Street empty, while distressing cases among Indian women and children are refused admission, and also, partly by information which has come to us privately and which we have reason to believe is reliable. Even if it is justifiable for a

Hospital Committee to try for a time the experiment of excluding certain classes in order to see if their exclusion will induce another class to come in, a time limit should surely be set to such an experiment. The latest report of the Dufferin Committee states that, as indeed the title of the Association "for supplying female medical aid to the women of India" would imply, the general rule of the Association is that the hospitals should be open to all women, and that only in exceptional circumstances is a patient refused admission to a special ward, or a hospital reserved exclusively for *pardah* women; it adds that "in Calcutta this latter plan has been sanctioned as an experiment only, but only because there are several other hospitals in the city at which women of the *non-pardah* classes can be relieved." When an experiment has been tried for three years under three successive English lady doctors, and has proved an utter failure, it seems, as we have already said, about time that it should cease. The English lady who writes to a contemporary speaks of the "efficient medical staff." Our own wonder is that any efficient medical lady should be found ready to waste her energies on an empty hospital; and that any humane woman—doctor, nurse or Committee lady—should lend herself to a system which would turn wounded, perhaps even dying, persons from the door, because they do not happen to possess a certificate entitling them to admission. As for these certificates which are exacted before admission, every man of the world knows that it is probably easier for women of known bad fame to obtain a certificate than for a retired *pardah* woman. How a committee which numbers several native gentlemen could have sanctioned rules which necessitate a native gentleman having to seek a certificate from other men as to his wife's illness, and her eligibility and respectability, is a marvel to all who have any idea as to what the *pardah* system really is. Our own impression is that, so long as certain wards are set aside for *pardah* and high caste women, they will not in the least object to the presence, in other wards, of women of other creeds or lower castes. That there is not sufficient hospital accommodation in Calcutta is shown by the numbers refused admission at the public hospitals. Many minor cases seem to be operated on and told to come up for daily dressing, which would be admitted if there were room. Moreover, ladies who have visited and sent patients to both the Dufferin Hospital and various other hospitals tell us that it can hardly be wondered at if women, even if not *pardah-nashina*, prefer the bright wards, the privacy, and the womanly care they enjoy at the Dufferin Hospital, to the bare halls, with rows upon rows of beds, open to visitors of all classes, both sexes, and possibly of the lowest character, which are to be found in some of the Calcutta hospitals, to say nothing of the reported *zulum* exercised by minor functionaries, not so immediately under the eyes of the chiefs as at a smaller hospital. Yet these very women, so anxious for admission, are daily refused, and the whole large hospital reserved for high caste ladies, who refuse, for the most part, to come in. What becomes of those who are refused admission at the hospital of their choice? We much doubt if many proceed to public hospitals; it is not only *pardah* women that shrink from the presence of students; and the fatalism of the East, more especially combined with the ignorance of the poor, probably sends many home to die after their rejection at the Dufferin Hospital—a rejection which they cannot well understand. In any case, we repeat that, in our opinion, suffering women and children are not fit subjects for further experiment on the part of the Committee of a would-be humane institution, supported by public funds; and it would be well if the

Central Committee, as the United Kingdom branch, which is presided over by the charitable lady whose name the Association bears, would cease to "sanction" this most unsuccessful experiment of the Bengal Committee. The native *pardah* lady is not yet sufficiently educated to have a full appreciation of the benefits to be derived from treatment in a first class hospital. Her prejudices are still strongly conservative, and it is impossible to break through them in a hurry. Medical aid, thanks to the inauguration by Her Excellency Lady CURZON of these Victoria Scholarships, will be more and more accessible to the *pardah* *nashin*, and its *bona-fide* gradually understood and appreciated; but at the present date experiment has conclusively proved that the time has not yet arrived when the *pardah-nashin* will freely patronise a hospital. This being so, and there being, as we have above stated, no bar to the hospital being thrown open to admit other patients of other castes, there surely can be no profit or gain in keeping what ought to be a first-class woman's hospital standing practically tenantless. Lady CURZON is now in England, and interested, as she is, in the work in India, it is more than probable that she will seek an opportunity of discussing the progress with Lady DUFFERIN. The subject of the Dufferin Hospital, Calcutta, taking into consideration all the facts which have now been made public might fittingly occupy Her Excellency's attention.

CIVIL MEDICAL WORK IN INDIA.

A CORRESPONDENT in the *British Medical Journal* says:—Further, India contrasts the nature and amount of the work of a civil surgeon in India with that of a regimental medical officer as follows: Every civil surgeon of a "second-class" district is made not only medical officer, but also superintendent of the jail. As superintendent he is directly responsible for the purchase of grain, etc., for the food of the prisoners, and for the purchase of the raw materials which their labour is to turn out into marketable manufactured articles. With an entirely native staff under him, he has not a happy time, for at any moment he may be let in for a considerable sum of money, abstracted in one way or another while he is absent from head-quarters on inspection duty; for he has six to eight outlying dispensaries in his district, every one of which he is bound to inspect once a quarter, and some of these are four or five days' journey from head-quarters. The material of these dispensaries is nominally in the charge of the native subordinates who are attached to them, but, as a matter of fact, it is the civil surgeon who is responsible. At head-quarters he has two dispensaries, one attached to a more or less extensive hospital in the town; and in the civil lines there are the jail hospital and the police hospital. All of these he has to visit, and for the arrangements of all he is responsible. His office correspondence as civil surgeon will take at least two hours a day, and he is a lucky man if his jail office work can be done in anything under three hours. For all this he receives 50 rupees per mensem less than if he were in charge of a regiment for the civil surgeoncy, plus 50 to 75 rupees a month for the jail superintendentship. Being, like all his kind, an enthusiastic surgeon, he has two hours a day of surgical work at the hospital, and from one to two hours' work seeing out-patients. To this add the time spent at the dispensary and at the police and jail hospitals, and then compare it with the half-hour which the regimental surgeon spends in his hospital, where there lie from two to eight patients, and it will be evident that the regimental surgeon is better off than his brother officer who has applied for, and being considered a specially gifted man has obtained, civil employment. It is no wonder that candidates for the service are not forthcoming; and surely it is high time that our professional brethren in Parliament took this matter up and insisted on bringing about an improvement in the existing condition of affairs.

DIAGNOSIS OF GONORRHOEA IN WOMEN.

DR. J. D. THOMAS, M.D., Professor of Genito-urinary Diseases, Western Pennsylvania Medical College, Pittsburg; Genito-urinary Surgeon to Rushville Hospital, treats, in an American contemporary, on the subject of the diagnosis of gonorrhoea in women. We summarise. Women, as opposed to men, frequently have a gonorrhoeal discharge from the vagina, and unwittingly remain indifferent—even an acute gonorrhoea, if confined to the os and cervix uteri or vagina, may pass unnoticed: when the urethra was involved, the physician was then generally consulted. It was a mistake to find swollen labiae and difficult locomotion, unless Bartholinitis existed; cases of simple leucorrhoea may often present a more profuse discharge than is found in the gonorrhoeal ones: the profuse discharge and swollen labiae were only found in virgins or children who had vulvitis in addition to the other manifestations of the disease. In these latter cases the hair covering the man's veneris, in those old enough, would be found matted. A contributor had lately dilated on the ease with which gonorrhoea could be diagnosed in the female. This was true if the typical and full symptoms were present. But this was not so in the majority of cases. If the gonococcus was found, the diagnosis was positive. But its recognition required much practice, and, further, in old cases, where the urethritis had been recovered from, and where douching of the vagina had been practised, the gonococcus was very difficult to detect, and the clinical history and direct observation and experience alone formed a diagnosis. In cases of children with vulvitis and urethritis the infection was often the result of sitting upon a vessel previously used by one having gonorrhoea. When mothers brought their children for treatment of genital discharge, it could generally be ascertained that they themselves had, or had had painful micturition and gave a history of vaginal discharge. If married women presented themselves and gonorrhoea was suspected, it was well to investigate further, but not in a way to arouse the suspicion of the patient, for it was not the function of the physician to create domestic troubles: she might be asked whether the discharge produced discomfort or a discharge in the husband: if the husband had a discharge, it would help to clear up the diagnosis and make any remarks guarded. If a direct examination is undertaken, the women should be told not to urinate before calling for treatment. The first thing to observe would be the amount and character of the discharge, then the condition of the ducts and glands of BARTHOLIN, then the urethra, and finally the os and cervix uteri. If gonorrhoea, the amount of vaginal discharge might be moderate. The ducts leading to the glands of BARTHOLIN on pressure might discharge a purulent or mucopurulent secretion; but if the gland was acutely inflamed, the patient would be obliged to lean upon her back, owing to the large pear-shaped and painful swelling. On inspecting the meatus, a drop of pus is usually observed. Then, with a speculum into the vagina, a discharge would be noticed at the os with congestion or erosion: the cervix would be covered with a tenacious secretion, and as the speculum was being opened, a teaspoonful or more of thick pus would well up into the posterior blade of the speculum from the *cul de sac* behind the cervix where it accumulated. The pus from the urethra did not always present immediately: neither was the meatus always swollen and pouting: but if the urethra was "milked" from above, the pus would present at the meatus. If there was no history of traumatism, the urethritis and Bartholinitis were pretty sure to be of gonorrhoeal origin.

UNRECOGNISED SOURCES OF DEBILITY.

THE *Medical Brief* says:—All of us have at times been in the presence of people who exhaust us, and leave us utterly unfit for exertion of any kind. Their spiritual heaviness and rank egotism flatten us out like the indigestible pancake, and it is some little time before we regain our normal elasticity.

Now, delicate people, invalids, and the like, are very susceptible and impressionable. They give up their vitality easily, are dominated and swayed by coarse, hearty natures, irritated and depressed by fault-finding, censorious, egotistical folk. They suffer unconscious vital losses in an unpleasant or inharmenous moral atmosphere. They do not always appreciate this fact at its real worth, but go on

imbibing spiritual poison, having their vital stamina indolently undermined, feeling fretful, dejected, restless, pining for an atmosphere of love and truth, without knowing just what is the matter, or just what they want.

Here the sympathetic insight and tact of the physician may do much to aid and protect his patients. He can advise them to avoid those who bore them. To keep away from persons who wish to enlist their sympathies by continual complaints, railings against fate, censure of other people, long-winded accounts of bodily ailments, harping upon misfortunes, dwelling upon sad and distressing events. The company of men and women who give copious advice, indulge in self-assertive and disputatious conversation, or dogmatic arguments, is very bad for delicate people, and they should be so instructed. Demonstrative people are also a nuisance, and, in fact, all who lack self-control and a feeling for the spiritual freedom and rights of those with whom they associate.

Examination of an invalid, convalescent or delicate person, who has been exposed to such society for any length of time, finds them with cold hands and feet, a hot head, throbbing pulses, vibrating nerves, and a general sense of exhaustion. Frequent brief intervals of seclusion, poetry and music of a serene character, pastoral pictures, sylvan scenery and blue waters, everything which promotes calmness, quietude, self-control, tends to counteract such baneful effects, and is strengthening in its influences.

THE FAMILY DOCTOR.

THE *Medical Brief* says:—The growth of specialism has left the cities practically without good general practitioners. The men of ability devote themselves exclusively to specialties. They set apart certain hours for consultation and office treatment, and when these hours are over, they become as inaccessible to the people as high and mighty potentates.

Specialists are necessary of course. We must have men who know all there is to know in particular branches of practice, and it takes all one man's time and energy to do this. But there is a still greater need for all-round men—good, general practitioners, well posted and progressive, who are willing to put aside personal convenience and come to the relief of patients wherever their services are in demand day or night.

The majority of cases do not require a specialist. Acute illnesses, which run their course, or simple functional disturbances, which cause pain and disability, call for the services of a man who studies the body as a whole, understands the great sympathy between its parts, and how easily a very simple treatment can unravel a complex tangle of disease.

Specialists are predisposed to pessimism—a great handicap in practice—because the worst cases are brought to them, and because they are apt to rest satisfied with local treatment. The general practitioner, on the other hand, has better success, because he takes a broader, more cheerful view, and tries to restore normal conditions wherever he finds morbid action.

There are better openings in the city for men of ability and energy as general practitioners than specialist. It is easier to rattle over a dozen specialists in any branch of practice than one really good general practitioner. There are plenty of doctors who do routine hack work from year to year, but the general practitioner, who is a hard student, a progressive man, possessed of commonsense, genuine sympathies, and an honest desire to help his patients, is very scarce. They are more plentiful in the country, where life and its necessities press more closely on the doctor's notice.

There is room, financial success and welcome for such men in the cities, if they can bring with them, and retain, the rustic spirit of simplicity and helpfulness.

OPENING OF NEW SURGICAL WARD OF THE EDEN SANITARIUM, DARJEELING.

THE Lieutenant Governor opened the new surgical ward of the Darjeeling Eden Sanitarium on the 8th May in the presence of a large and distinguished gathering of official and non-official gentlemen and several ladies. His Honor, attended by his personal Staff, arrived at 5 o'clock, and was met at the entrance of the Sanitarium by the Commissioner of the Division, the Deputy Commissioner of Darjeeling, the Secretaries to Government, the Inspector-General of Civil Hospitals, the Civil Surgeon of Darjeeling, and the Managing Committee of the Eden Sanitarium, by whom the procession was escorted to special seats in the verandah of the new ward. The proceedings opened with a short service of prayer by the Chaplain of Darjeeling, specially composed to suit the occasion of the opening of a hospital for the treatment of the sick and suffering. The Civil Surgeon then, on behalf of the Managing Committee, read a report of the conditions under which the new hospital had been built, pointing out that for years past the number of serious surgical and medical cases from the plains requiring special treatment in such a hospital in the hills has been steadily increasing. Sir JOHN WOODBURN replied briefly, saying that the Government being convinced of the necessity of such an institution were glad to encourage the scheme with a donation of Rs. 20,000 with which the ward had been built, and, as the audience would see for themselves presently, the building and the surgical appliances in it were worthy of the object with which they had been provided, *viz.*, for the separate and special treatment of serious surgical, medical and obstetrical cases demanding operation and special nursing. His Honor then proceeded to unlock the door of the ward, and declared the building open.

The new ward will accommodate 12 patients of the various classes, and at the same charges as are now available at the sanitarium. The rooms are neatly and well furnished. The surgical operation room is certainly the great feature of this new building. It is a perfectly modernised arrangement, with aseptic tables and other furniture obtained from London. Altogether Surgeon-Major LEAHY, I.M.S., and his Assistant Surgeon—Mr. BROWN—deserve much credit for the excellent order that prevails in every part of the Eden Sanitarium.

AN INDIAN HEALTH RESORT FOR TUBERCULOUS PATIENTS.

A REMARKABLE instance of complete recovery in a case of tuberculosis of the lung has come to our notice. A young English girl of 16 developed marked tuberculosis of the lungs in Calcutta, where three well-known physicians pronounced her case as most serious, and advised her immediate removal to Europe for a change. There had been repeated attacks of hæmoptysis, with all the physical evidences of diseased lung, with an alarming degree of emaciation. The parents having only recently returned from a long visit to Europe, decided to go to one of our Indian hill stations instead, and they selected Almora, a little place in the Himalayas, situated between Naini Tal and Ranikhet. The air here is bracing and dry. Within a few weeks of the arrival of the invalid at Almora, she began to improve. The painful hectic fever subsided, and with it the troublesome cough, while she put on flesh rapidly. In two months she seemed cured, and after a stay of four months in this charming and quiet health resort, the patient returned to Calcutta looking plump and well. She had gained over twenty pounds in weight during this period. On her arrival in Calcutta she was carefully examined and her lungs were

found restored. Several months have now gone by, and there has been no return of lung symptoms, and the generally improved tone of the girl's health has been steadily maintained. This important case points to the possible advantages of Almora and other unknown hill stations in India as resorts for consumptives. We shall be very pleased to publish the experiences of practitioners in regard to the special influences of Indian hill climate on tuberculosis and other kindred ailment. It is clear that Almora deserves a trial as a health resort for consumptives, and Indian doctors may be induced to send their patients there instead of to Europe and other places.

COLONEL EDWARD LAWRIE, I.M.S.

LIEUTENANT-COLONEL LAWRIE, the retiring Residency Surgeon, was entertained to a farewell dinner on Tuesday by a number of his friends at the United Service Club, Hyderabad. Sixty sat down to dinner, the head of the table being taken by Colonel BRUNKEE, R. H. A., Commanding the District, with the guest of the evening on his right, Captain HAIG, First Assistant Resident, being on the left.

Colonel THOMPSON, I.M.S., Principal Medical Officer, in proposing the health of the guest of the evening, eulogised the eminent services rendered by him to the Nizam's State, and his services generally. He expressed the deep regret of all at the severance of such a long and close friendship.

Colonel LAWRIE, in rising to reply, was received with the greatest enthusiasm. He thanked his friends for the great honour done him, and expressed gratitude to the State which had granted such facilities for enabling him to carry on his work. Referring to his own work, he attributed any success which had attended him to the eminent men under whom he had received his training, one of whom was the late Sir JOSEPH FAYEE, whose son he was glad to see amongst them. Referring to Hyderabad, Colonel LAWRIE thought if the State could produce such an excellent soldier as Major the Nawab AFSUR UD-DOWLAH, and such a diplomatist as Mr. FAKI-DUNJI JAMSHEDJI, he felt sure the Hyderabad Medical School, which had a great field before it, would turn out many medical men quite equal to himself.

His Excellency the Minister entertained Colonel LAWRIE to a farewell dinner the next day.

RICKSHAWS FOR CALCUTTA.

Capital says:—"If our enterprising coach-builders in Calcutta would take up the trade and turn out a rickshaw suitable for our wants, there ought to be a great demand for them, when once they become fashionable. They need not be exactly on the Japanese model. More leg room would be necessary. The wheels of the steel spider type, with cushion tyres, might be smaller, and the floor nearer the ground for use in Calcutta. The rickshaw would be an ideal carriage for shopping, and the man who rides on his bicycle to the office could take his rickshaw instead on a rainy day. For brokers, whose traffic is confined within the business part of the city, the rickshaw would be most convenient, and the blocks so frequently occasioned by gharries would cease. Missionaries and clergymen and curates and others of that same order would take to the rickshaw at once, like ducks to a pond. It would soon become the popular carriage."

We agree with our enterprising contemporary. The rickshaw is a far better conveyance for the tropics than the dirty and ugly ticoa-gharry, or the still dirtier and uglier palanquin.

DEATH OF LIEUTENANT-COLONEL EDULJI MANEKJI DAMLA, I.M.S.

LIEUTENANT-COLONEL EDULJI MANEKJI DAMLA, I.M.S., in charge of No. 66, Native Field Hospital, China Expeditionary Force, whose death has been announced, was well known and much liked in Madras and its vicinity on account of his amiable disposition, and he was regarded with great confidence on account of his professional skill. He joined the service on the 30th September 1878, and attained the rank of Lieutenant-Colonel on the same day in 1896. Before going on field service to China, he was for several years in medical charge of the M. I. Dépôt at Pallavaram. Though physically slight and somewhat delicate in appearance, Colonel DAMLA was perfectly well and "fit" when the Expedition started, but probably the rigours of campaigning proved too much for his constitution.

EXTRAORDINARY FECONDITY.

ONE of the Italian journals has recently recorded an extraordinary case of fecundity, of which it guarantees the authenticity. FLAVIA GRANATA, who it appears is well known at Rome, has recently given birth to her sixty-second child. This woman is now fifty-nine years old. She was married at twenty-eight years of age, and has successively given birth to a daughter, then six sons, then five sons, then four daughters, and then a long series of twins annually, and ended recently by having four sons. It is much to be regretted that this interesting woman did not marry earlier, as she thus lost ten precious years of her life, and so missed the distinction she might have enjoyed of being the mother of a hundred children.

ALBERT VICTOR ASYLUM.

THE Prince Albert Victor Asylum for lepers has been appointed by the Lieutenant-Governor to be a Leper Asylum under the Lepers' Act, and His Honor has been pleased to constitute for it a Board consisting of the following members, namely, the Commissioner of Police, Calcutta, Chairman, the Chairman of the Corporation of Calcutta, Lieutenant-Colonel G. F. A. HARRIS, I. M. S., Major C. R. M. GREEN, I. M. S., Rai KAILAS CHUNDER BOSE, Bahadur, the Hon'ble BABU SURENDRANATH BANERJEE, member, nominated by the Prince Albert Memorial Committee, and Rai ISSUR CHUNDER MITTER, Bahadur. Another member will be appointed on the nomination of the District Charitable Society.

SHORT ITEMS AND PERSONALITIES.

On Monday afternoon Colonel Dollson, I. M. S., Residency Surgeon, with the staff of the Lady Curzon Hospital, were photographed as a fitting memento of his work in Bangalore. The natives invited him to attend a social gathering prior to his departure to Burma to take up his new appointment as Principal Medical Officer, Rangoon, for the Southern Shan States.

Beside the unveiled mysteries
Of life and death go stand,
With guarded lips and reverend eyes
And pure of heart and hand.

The Great Physician liveth yet,
Thy guide and stay to be,
The Healer of Gennesaret
Shall walk thy rounds with thee.

In consequence of Lieutenant-Colonel G. Ranking, I.M.S., having proceeded Home on medical leave, Mr. Herbert A. Stark, B.A., has been appointed to officiate as Principal of the Calcutta Madrasa, and has assumed charge of his duties. This is the first Anglo-Indian ever appointed Principal to the Madrasa.

We have glanced with admiration at the formidable list of appointments to the medical establishment of His Most Gracious Majesty the King, and we heartily congratulate St. Mary's, London, and her three honoured representatives upon that brilliant staff. We need hardly say we allude to the appointments of Sir William Henry Boardman, Bart., as physician in Ordinary; Sir Edward H. Sieveking, as Physician Extraordinary; and Mr. George Anderson Critchett, as Honorary Surgeon-Oculist.

The War Office has decided to restrict British officers to British pay leaving for field service or other duty, and the same is applicable to the Royal Medical Corps, and they are also liable to be detailed for temporary duty on board a troopship.

The Council of the Royal Society have recommended for election, as a Fellow, Major A. W. Alcock, I. M. S., of the Medical College, Calcutta, and Superintendent of the Indian Museum, in recognition of his distinguished researches in Marine Zoology.

Takaram Luximon, 1st Grade Hospital Assistant, Bombay Command, 3rd Bombay Cavalry, Neemuch, has been presented a "Sanad" by the Hon'ble the Chief Commissioner, Ajmere-Merwara, for the meritorious services rendered during the famine of 1899-1900.

The Director-General of the Indian Medical Service has been asked to formulate proposals for the compilation of a Manual for the management of a Medical Store Dépôt on the lines suggested by the Committee.

Lieutenant-Colonel A. F. Dobson, I. M. S., for many years Residency Surgeon at Bangalore, who has been appointed Principal Medical Officer of the Rangoon District, leaves for Rangoon this week.

Captain J. W. Grant, I. M. S., Residency Surgeon, Persian Gulf, has been granted three months' leave from the 6th June, Assistant Surgeon J. Lobo, from Bushire, officiating.

Captain James, I. M. S., from China, will join Drs. Christopher and Stevens of the Malaria Committee of the Royal Society, who are now in India.

Captain R. F. Stannage, I. M. S., for some time Chief Plague Officer, has been selected to assume the Residency Surgeoncy, Mysore.

Majors J. R. Roberts and P. J. Lumsden, I. M. S., Bengal, are posted as Residency Surgeons, Indore and Gwalior, respectively.

Lieutenant-Colonel Mair, I. M. S., Inspector-General of Jails, Bengal, proceeds on six months' leave in July, when Mr. W. Leonard will act for him.

Major Elliott, I. M. S., with the Indian Contingent in South Africa, has been recommended for special notice.

Captain Bourke, I. M. S., is about to be selected for appointment in the Assay Department.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

Current Medical Literature.

MEDICINE.

Senile Heart.

DEWIS regards retardation of the circulation as the primary factor in all senile changes. This coincides with the appearance of, and is to a certain extent proportional to, the extent of arterio-sclerosis. Owing to the consequent increased peripheral resistance, the senile heart does more work than a younger one, but the circulation may be slowed, because even a stronger contraction fails to overcome the resistance completely. The senile heart has, therefore, but little reserve force; though it suffices for rest, it cannot adapt itself to the requirements of increased exercise. A young and healthy heart can pump when required from four to thirteen times the usual quantity of blood into the aorta. This it attains partly by an increase in frequency and partly by an increase of force of the beats. A heart beating 140 times in the minute will drive twice as much blood into the aorta as one beating 70, provided the force of the beats remains the same, that is, it does twice as much work in a given time. If the force of the beats is also doubled, it will pump four times as much blood. The beats of the senile heart cannot greatly increase in frequency without arrhythmia or tachycardia, and other signs of heart failure supervening. The writer found that a definite amount of work, which in the young raised the pulse-rate from normal to 114 or 140 and caused no dyspnoea, could not, as a rule, be performed by those over 60. A less amount of work produced dyspnoea, due to incomplete evacuation of the ventricles and arrhythmia, but the pulse-rate seldom rose more than 10 beats in the minute, for instance, from 62 before the exercise to 72 after it. Thus in the aged the heart may fail while the pulse-rate is still comparatively low. Since an increased demand on the heart is not met by a corresponding increase in rate, to do the same work stronger beats would be required than in youth. This comparative failure of acceleration during exercise is probably due to the senile heart being largely unable to react to accelerating stimuli. If all inhibitory influences are removed by paralyzing the vagus endings by atropine, the accelerator nerves come into play, and the pulse-rate rises by 30 to 50 beats a minute in healthy young subjects. In those over 60, however, this action is less marked or altogether absent. The automatic energy of the senile heart is diminished; it can contract neither so frequently nor so powerfully as formerly. The anatomical cardiac changes in old age are secondary to arterio-sclerosis, and consist in hypertrophy of the walls with dilatation of the cavities. The coronary arteries are constantly more or less atheromatous, and the intima and adventitia of the finest muscular branches may be greatly thickened. The finer changes consist in gradual atrophy and disappearance of the muscular fibres. Their place is taken by fibrous tissue—there is a myofibrosis cordis, the fibrous tissue penetrating from the thickened intermuscular septa even between individual muscular fibres. This change is most marked in the auricles, which may be converted into passively extensible, but no longer actively contractile, sacs.—*Brit. Med. Jour.*

Intestinal Worms and Appendicitis.

At a recent meeting of the Paris Académie de Médecine, M. LAVENAN presented a communication from Dr. MATIGNON, Physician to the French Legation at Peking, entitled

Intestinal Helminthiasis, Food Regimen, and Appendicitis in China. In a previous communication, presented on September 21st, 1897, MATIGNON called attention to the great prevalence of intestinal worms in China. In his recent communication he confirms his previous statements as to the frequency of worms (ascarides and trichocephali) among the Chinese and Europeans living in China. He adds that, notwithstanding this, he had never, during the four years and a half he had been in Peking, seen a single case of appendicitis, nor had he met with any in the European population, numbering some 120 persons, under his care. Three times he had observed (in a young Russian woman and in two missionaries) abdominal pains suggesting appendicular colic, and which seemed to him to depend on the presence of a tenia in the digestive canal, as they ceased on the expulsion of the parasite. These facts, it was pointed out, do not contradict those lately adduced by METCHNIKOFF who indeed admits that the parasites act chiefly by inoculating microbes in the mucous membrane of the intestine, and it is easily understood that the worms produce appendicitis according to the virulence of the intestinal microbes. It is possible that the microbic intestinal flora of vegetarians like the Chinese is less harmful than that of Europeans, especially all such as eat much meat. The rarity of appendicitis in the Chinese appears to MATIGNON to confirm the opinion of KREN and LUCAS CHAMPIONNIÈRE as to the predisposing influence of meat diet in the etiology of appendicitis. The Northern Chinaman feeds chiefly on vegetable substances, meat being a luxury within the reach of few. "The great majority of the population, both of the country and of the capital, consumes mainly millet simply boiled in water, a little rice of poor quality, sweet potatoes (tuber of *Ipomoea batatas*), cabbage, turnips preserved in salt, and a large amount of garlic. For bread the Chinaman eats the flour of maize or barley, forming buns or cakes of unleavened paste cooked by steam." This coarse and unappetizing diet appears to keep the bowels freely open. LAVENAN suggests that as the question of the etiology of appendicitis has been placed in a different light by the work of METCHNIKOFF and LUCAS CHAMPIONNIÈRE, it is desirable that an inquiry as to the etiological conditions of the disease should be carried out in all countries.—*Brit. Med. Jour.*

Case of Acromegaly.

M. A. TRACHTENBERG's patient was a woman aged thirty-one years, who for ten years had noticed a gradual increase in the size of her hands, feet and face, while at the same time she was becoming stouter. For a period of several years she was much troubled by numbness of the finger tips, alternating with formication, but later this symptom subsided. Six years ago the eyesight began to grow weak, and a little later the memory became very defective, so that recent events were wholly forgotten, while what had happened during childhood was easily recollected. During the whole course of the disease she had grown progressively weaker, and, of late, cardiac symptoms, such as precordial dread, palpitation, vertigo, etc., developed. On physical examination it was found that, contrary to the observations of most writers, there was no hypertrophy of the left ventricle, nor accentuation of the aortic or pulmonary second sounds. A sign to which KAS'S name is attached, was present, viz., dulness over the upper portion of the sternum; this is thought to be due simply to the bony hypertrophy. A well-marked bitemporal hemianopsia was made out, a fact tending to support MARIE's theory of hypertrophy of the hypophysis cerebri as being the cause of the lesion. It is assumed that the blood contains substances highly stimulating to growth, and that it is the function of the pituitary body to neutralise these; hence when it is diseased, a sort of auto-intoxication takes place, and acromegaly is therefore to be ranked with myxoedema and exophthalmic goitre. An argument against this very plausible hypothesis is the fact that the pituitary body has been found diseased in many different ways in acromegaly, both hypertrophy and atrophy having been noted, as well as new growths, yet the clinical picture is always the same.

SURGERY.

Operative Interference in Peritonitis.

THE value of operative interference in peritonitis arising from affections of the female sexual organs has till recently been recognised in only two forms of the disease, viz., the tuberculous and the perforative. F. v. WINCKEL (*Ueber die chirurgische Behandlung der von den weiblichen Genitalien ausgehenden Bauchentzündung*, VOLKMANN's *klinische Vorträge*) recommends a much more general application of oeliotomy, and divides suitable cases into five classes: (1) Tuberculous peritonitis in all of its forms is curable by abdominal section with evacuation of the exudate, although it is still a mooted point as to whether or not the cavity should be flushed; and if the former, whether aseptic or antiseptic solution is more advantageous. The wound is to be completely closed and no provision made for drainage. (2) Gonorrhoeal peritonitis, although usually not very severe, requires operation when pyosalpinx tumors exist. The size of the tumor determines whether abdominal section or an anterior or posterior vaginal operation is to be performed. Drainage is unnecessary in most cases. (3) Diffuse post-operative peritonitis is to be treated by a partial reopening of the original wound and evacuation of the pus. Drainage is indispensable. (4) Diffuse puerperal peritonitis indicates operation as soon as the pus formation has reached an appreciable degree; drainage is necessary, and most writers recommend irrigation of the cavity. (5) Perforation peritonitis is nearly always fatal unless prompt surgical measures are taken. Abdominal oeliotomy with free incision is to be performed as soon as possible, and the affected organ or organs are to be extirpated. Drainage is needed only when purulent foci are left behind.—*New York Med. Rec.*

Tympanites.

AN article upon this subject from Dr. MILES P. PORTER appears in an issue of the *Medical News*. He draws attention to the danger of distension and the probable fatal termination by heart failure. He speaks of the causes as being either obstruction to the passage of gas or the undue formation of gas. The obstruction may be due to paresis or physical causes, as bands, etc. He quotes SWEETNAM, and gives him credit for priority in recommending postural treatment of tympany.

He arrives at the following conclusions:—

1. That intra-intestinal tympany in and of itself often kills patients suffering from abdominal and pelvic disease, and that it may do so in cases which are neither pelvic nor abdominal.
2. That tympany occurring in the course of any serious illness should be considered a symptom of ill omen, and that measures for its relief should promptly be instituted.
3. Failing to obtain relief by cathartics, posture, enemata and the use of the rectal tube, oeliotomy and incision of the gut should be promptly done.
4. In cases of general peritonitis and bowel obstruction no trial should be made of either methods, but oeliotomy and incision of the gut should be performed as soon as the diagnosis is made.
5. Rupture of the bowel should be carried out only in cases in which the patient is in *extremis*, and then only in cases such as typhoid fever, without perforation, pneumonia, etc., which present no other cause for oeliotomy than the tympany itself.—*Canad. Prac.*

Treatment of Burns.

FR. E. MUELLER (*Aerztl. Rund.*) says:—Ichthyol has been used in cases of severe burns with remarkable success. The ichthyol is applied pure and in a rather thick layer, talcum powder being then liberally sprinkled on it, and plenty of cotton-batting applied, the whole being fixed in place by means of a strip of soft material. The bandage should not be renewed. After three or five days it is removed, and the burned part is then found to be entirely healed. This result is invariably secured in burns of the first or second grade, if the ichthyol application has been made when the vesicles may still be completely emptied of their fluid contents on incision. If the contents of large vesicles are already gelatinous, or if the vesicles are already cracked, it is necessary to remove the *detritus* before applying the ichthyol.

Disinfection is entirely unnecessary. Should the bandage have become wet through from excessive secretion on the second day, it should be removed, and a new application of ichthyol with fresh cotton be made. As renewal of the bandage is very painful, ichthyol vasogen may be used in severe cases, where there is a probability of the secretion's being superabundant, as such bandages may be readily renewed twice daily if necessary.

Abscess and Gangrene of the Lung.

WITHINGTON has studied the records of 56 cases of abscess and gangrene of the lung; 20 died; four were discharged unrelieved, four well; and the remaining eight were "relieved." Autopsies are reported in eight cases. In one, a case of abscess in which the diagnosis had been obscure, it is believed that local tendencies during life should have suggested the existence of abscesses. In one case encapsulated bacilli were found, which, injected into a guinea-pig, caused death, and were found in the peritoneal fluid of the guinea-pig. Four cases had been operated upon; one of these, in which there was a localised empyema communicating with a pulmonary abscess, recovered. The surgical prognosis varies according to (1) the existence of a general foetid empyema; (2) the presence of pleural adhesions over the affected lung-area; (3) the existence of a focus of gangrene not covered by protecting pleural adhesions. In the last variety operation is almost certain to result in general empyema, and drainage is difficult; the second variety is the most favorable for operation; while in the first variety the prognosis is bad although operation is demanded.—*Phil. Med. Jour.*

Treatment of the Permanent Teeth during Adolescence.

WE recommend amalgam, or the combination of cement and amalgam, for buccal teeth, and cement for the labial teeth of the permanent denture during adolescence, to be renewed as may be necessary until adult age—say sixteen to eighteen years—when gold can be safely inserted. These materials are thus employed during the growing years merely as an expedient until the dense texture of maturity shall have been attained. These deductions are from clinical observations from empirical practice, but the results accomplished fully justify the claims made for the method, and the confidence with which it is recommended. A. H. THOMPSON.—*Dental Cosmos.*

OBSTETRICS AND GYNECOLOGY.

Cæsarean Section in a Girl aged Thirteen.

CLARENCE WEBSTER (*Amer. Jour. of Obstet.*) recently operated on a girl aged 13, American by birth, and apparently of weak intellect. She was in the eighth month of pregnancy. The bony pelvis was of the justo-minor type, the true conjugate measured 9.2 centimeters, or 3½ inches. A sudden attack of flooding came on, the umbilical cord had prolapsed, and the membranes ruptured. The cervix was reached with difficulty, and was found dilated to about the size of a silver dollar. It was filled with blood clots, which extended upwards into the uterine cavity. The vagina was small and resistant, and allowed of no obstetric manoeuvre. It was speedily plugged, and CÆSAREAN section performed.

The uterus was firmly contracted on the foetus, and had never relaxed since the effects of the anaesthesia had begun. The incision was mesial, vertical, and anterior as usual; it was 5 inches in length. The foetus lay transversely with its head to the right. The placenta was attached posteriorly, three-fourths to the upper, and the rest to the lower, uterine segment, and this lower attachment had separated, and thus no doubt accounted for the hemorrhage. The wound in the uterine wall was closed with continuous chromic gut, which approximated the entire musculature. The peritoneal edges were inverted, and closed with formalin gut. The peritoneal cavity was filled with hot saline solution before closure. The patient made a good recovery. The urgent condition of the patient and the complications made Cæsarean section necessary; turning would have been impossible, and the tissues of the cervix were not relaxed as at term. Rapid dilatation could only have been carried out at the risk of severe laceration.

Uterine Fibroids.

HOMER GAGE (*New York Medical Record*) considers severe and exhausting hemorrhages, and rapidity of growth of tumors, as well as persistent pain, interference with the functions of the bladder or rectum, and uterine obstruction, indications for operation. Operation is also worthy of consideration when the mere knowledge of the existence of the tumor induces a condition of chronic invalidism. Age should be a small factor in determining the question. Not only do fibroids tend to delay and prolong the menopause, but in a study of four hundred cases KATTMANN found that in nearly twenty-five per cent. neither climacteric nor menopause had any hindering effect on their growth. As to the choice of operation, the author uses dilatation and curettage whenever possible. He has performed radical operations in many cases. Myomectomy he has done only six times, but with very gratifying results, and he believes that a steady improvement in technique will widen the field for the practice of this measure, giving us, at least in a very large number of cases, a safe, non-mutilating method of dealing with uterine fibroids.

Cure of a Vesico-utero-vaginal Fistula.

BARDESCU reviews various methods devised by JOBERT, FREUND, BARDENHEUER, and others for the cure of a vesico-utero-vaginal fistula, pointing out their advantages and defects, and then calls attention to a new method used in the hospital of Bucharest, and known as cysto-colpo oeliorrhaphy. He reports three cases successfully treated by the new method, and gives a detailed description of the operation, which he says should be performed under ether narcosis with the patient in a dorso-sacral position and the limbs strongly flexed. He divides the operation into four

stages: (1) The separation and treatment of the uterus. (2) The separation of the vesical and vaginal walls and the obliteration of the vesical laceration. The bladder is closed with catgut sutures in two series, submucous and muscular. (3) Opening of the peritoneum and colpo-oeliorrhaphy. (4) Repair of vagina and vaginal fixation of the uterus. This completes the operation and the fistula is wholly obliterated. A self-retaining catheter is employed and is removed in from six to nine days. BARDESCU thinks the operation is easily performed, requires no special instruments, and is productive of the best results, and adds that the greatest care must be taken in placing the sutures in the bladder, since upon these hang the success of the operation.

Ruptured Perineum.

BUCK says:—The operation for ruptured perineum is one which has given me great satisfaction. In this I follow the instruction of LAWSON TAIT closely. Not a particle of tissue is removed; I use silkworm gut for sutures, tied in the ordinary way (no shot and coil sutures or quill sutures). I leave the sutures in about three weeks, and I keep the bowels open and loose daily, beginning the second day after operation, and syringe out both the vagina and rectum with at least a pint of warm water every day. My object is never to let a solid motion pass the rectum and to keep that gut empty. The patient is allowed to pass urine *sponte* and from the first—that means "no catheter." The new perineum is thick and stands the strain or subsequent labour well.

In recent lacerations of the perineum I do not advocate insertion of sutures, my plan being to keep the legs together for a fortnight to three weeks, to syringe the vagina daily, to keep the bowels loose and rectum empty. With this treatment I have repeatedly had lacerations of all degrees of severity up to and including those through the sphincter ani, healed soundly at the end of the puerperal month.—*Brit. Med. Jour.*

Death from Vomiting of Pregnancy.

TWOMBLY (*New York Medical Record*) reports a case of death from the vomiting of pregnancy, apparently caused by a pregnant uterus crowded down in the pelvis, with sharp antelexion of the cervix. He calls attention to two points: (1) That displacements and faulty positions of the pregnant uterus which delay its rising out of the pelvic cavity and cause pressure upon the nerves of the cervix are often the source of excessive vomiting. (2) If all the measures taken for replacement and relief of the pressure fail in the early months of pregnancy, we should not trust to nature and time to effect a cure, but should proceed to empty the uterus before the patient's strength is too much exhausted. Indications for emptying the uterus are: (1) Inability of retaining any food taken by the mouth; (2) intolerance of rectal enemata; (3) more or less albuminuria; (4) progressive emaciation; (5) headache constant; (6) frequent and feeble pulse; (7) a certain apathy of the patient.

Periods in Gynecology.

HENRY J. GARRIGUES (*Medical News*) reviews the changes in gynecological practice which have taken place in the last quarter of a century. In describing the operation for abdominal hysterectomy as he performs it at the present day, he says that he can the more freely recommend the method described, as he does not claim any part of it as his invention. PAUL SEGOND has adopted it and calls it the "American method." As American gynecologists, it behoves us to give due credit to HENRY O. MARCY for the use of the buried continuous animal suture (1881); to J. A. EMMET for the retroperitoneal treatment of the stump (1884); to LEWIS A. STIMSON for the substitution of the direct ligation of arteries for the unsafe mass ligation (1889); to WILLIAM B. PRYOR for having shown the advantage of coming from below upward on the second side (1894); and to HOWARD A. KELLY for having combined most of these ideas in a clear, precise form (1896).

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Experimental Work in Hepatic Hæmostasis.

LUIGI BALDASSARI (*La Riforma Medica*) carried out his experiments on rabbits and dogs. Under chloroform anaesthesia the animal's abdominal wall was opened, and a deep wound was made in the convex portion of the hepatic lobe selected, which bled very freely. The margins of the wound were then separated, and a piece of decalcified bone was introduced and sutured in place, exercising a certain amount of pressure. The abdominal walls were then sutured, and the animal was allowed to recover consciousness. After a time, varying from a few days to a month and a half, the animal was killed, and a careful examination made. Hæmostasis was in every case found to have been perfect, and the wound completely healed. Forty-five days after the operation the bone was found to have been absorbed, leaving only a faint grayish line on the hepatic tissue.

Experimental Study concerning the Relation which the Prostate Gland bears to the Fecundative Power of the Spermatie Fluid.

GEORGE WALKER draws the following conclusions from his experiments:—A removal of the anterior lobes of the prostate gland in rats has no effect on breeding; but in a certain number it diminishes the fecundating power; and in a few this is destroyed entirely. Complete excision has a very marked effect on fecundity, reducing it to almost nil when the gland is entirely removed. Partial or complete removal of the prostate has no effect upon the sexual desire and capacity. Complete removal of the gland in the adult animal has no effect on the histological structure of the testicles. Complete removal of the prostate in the young animal has no effect upon the subsequent development of the testes.

Renal Tuberculosis.

FROM a study of 307 cases of renal tuberculosis submitted to some form of operative treatment, RAMSAY, in *International Medical Magazine* for February, considers the operation of nephrectomy or nephro-ureterectomy to be the most desirable operation for primary renal tuberculosis.

Nephrotomy is reserved as a palliative measure to be used when the patient seems unable to endure the more radical operation. Nephrotomy is rarely, if ever, curative, but may tide the patient over until sufficient strength is gained to enable a more radical operation to be performed. Nephrectomy, or nephro-ureterectomy, including at times a partial resection of the bladder, should be followed by lasting cure in 55.5 of the cases. It is contraindicated in cases of disease of the other kidney or of tubercular foci in other organs. Tuberculosis of the bladder is not a contraindication, however, as it will probably heal later, and a small tubercular focus in the lungs is not always a contraindication. To avoid a persistent fistula, it is desirable to remove the diseased ureter, together with the kidney. To avoid hæmorrhage, the ligature should always be employed instead of the clamp to control the renal vessels, and it should be remembered that accessory renal arteries occasionally enter near the poles of the kidney. The danger of incomplete removal of diseased tissue contraindicates attempts to resect tuberculous foci in the kidney. Tuberculosis of the kidney may be classed as a semi-malignant inflammation, and always requires surgical intervention for its effectual treatment.

Comparative Pathology of the Jews.

M. FISCHBERG concludes his article on this subject as follows:—The ideas advanced are summarised in the following propositions: (1) The death-rates of the Jews, at all ages, are relatively and absolutely lower than those of the people among whom they live. (2) The marriage rates and birth rates of the Jews are smaller than those of the Christians: the Jews increase in number more rapidly than non-Jews, because they lose by death relatively fewer children and bring more to maturity. (3) The Jews die less often than their neighbours from many of the infectious diseases, particularly epidemic cholera, small-pox, and tuberculosis. (4) Syphilis and alcoholism, and also diseases due in great measure to their poisons, are comparatively rare among the Jews. (5) Diabetes is very frequent among the Jews. Most observers have recorded that almost twenty-five per cent. of all the cases of diabetes occur in Jews. (6) All the functional neuroses and psychoses, particularly neurasthenia and hysteria, occur more frequently among Jews than among non-Jews: while all the organic nervous diseases, as tabes, general paralysis, etc., are less frequent, commensurate with the infrequency of syphilis and alcoholism among them. The great majority of cases of amaurotic idiocy occur in Jewish children, and insanity is met with among Jews between two and five times more often than among Christians. (7) Blindness, color-blindness, trachoma, and glaucoma, and also varicose veins, particularly hæmorrhoids and hernias, are very frequent among Jews. (8) All these peculiarities in the comparative pathology of the Jews are not due to any ethnic "biostatic" or racial characteristics of a purely anatomical or physiological nature in relation to non-Jews. They have their origin in the past history of the Jews, in their habits of life, and in the fact that syphilis and alcoholism have but rarely been seen among them. (9) Where the Jew is commingling with his Christian neighbours, and adopts their customs and habits of life, he sooner or later loses his "racial characteristics," and his comparative pathology presents no special peculiarities.

Bacterial Toxins.

V. C. VAUGHAN and T. B. COOLEY (*Journal American Medical Association*) say:—Experiments so far made upon the theory of the nature and action of the bacterial toxins give the following conclusions:—

(1) The colon bacillus in virulent form contains within the cell a toxin which is fatal to guinea-pigs of from 200 to 300 grammes weight in quantities of less than 1 milli-gramme. (2) The aqueous extract of the cells of the colon bacillus grown on agar is inert. (3) The entire germ is highly resistant to heat and to dilute acids and alkalies. (4) The cell-wall of the colon bacillus is digested by the prolonged action of artificial gastric juice, which does not alter the toxin. (5) The toxin as thus obtained is insoluble, or but slightly soluble, in dilute acid, but is slightly soluble in water and more readily in dilute alkalies. (6) This toxin responds to the ordinary proteid reactions. (7) The toxin, after being freed from the cell-membrane, is not destroyed by being boiled. Further research is needed to determine more definitely the nature of this toxin, and investigations must be extended to other bacteria.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Critical Review of Immunity.

DR. METSCHNIKOFF'S conclusions are as follows: (1) Immunity in infectious diseases is nothing else than a special type of absorption of organised elements in general. (2) The most frequent phenomenon observed in natural and acquired immunity is the phagocytic reaction. (3) Phagocytes act in proportion to their sensitiveness, and to their ability to digest organised elements. (4) The extra-cellular digestion takes place under the influence of special ferments, among which the alexines occupy the first place. (5) The cytases (alexines) remain in the bodies of the phagocytes and are not liberated into the plasma. They can only combine with the fluids of the body in the presence of phagolysis, i.e., injury to the phagocytes. (6) The substance known as *substance sensibilisatrice*, *Zwischenkörper*, or phlocoytase, resists the action of temperature more readily than the other ferments, and thus assists the digestive function of the cytases. (7) Phlocoytase is a phagocytic product excreted in considerable quantities into the plasma. (8) The organism may resist infection, however, without the aid of phlocoytase in natural immunity, and in certain cases of acquired immunity. (9) Antitoxines are, if not wholly, at least in part, products of phagocytes. (10) The origin of both natural and acquired immunity may be traced ultimately to cellular activity.

Pathological Conditions found in Meat Inspection.

D. E. SALMON states that our inspectors are instructed to condemn (1) all carcasses affected with generalised tuberculosis; (2) all carcasses with extensive localised tuberculosis; and (3) all carcasses with localised tuberculosis that show signs of emaciation. This ruling is considerably more stringent than the European practice. The nodular disease of the sheep's intestine is an interesting one. This is very common and apparently affects the sheep's health only when the nodules are so numerous as to interfere with the assimilation of the food. Another disease to be noted is actinomycosis with its lesions in the jaw, tongue, liver, lungs, and udder. In this country the process most frequently affects the maxillary bones. This disease is probably not transmitted from animals to man, so the carcasses are condemned only when there is emaciation, or when the system is affected at large. The author then considers the animal parasites.

Death in Bad Meats.

PTOMAIN poisoning is becoming an everyday occurrence. The growth of the cold storage business and the extensive use of canned foods is largely responsible. Raw and rare meats is another and a considerable factor in the situation.

Acute ptomain poisoning soon overwhelms and rapidly exhausts the vital forces. There is no warning. The attack comes on suddenly, prostrating the healthiest man, and increasing in violence until the individual succumbs. There is little time for the action of remedies. The ptomaines attack the nervous system—the citadel of life—and exhaust its power to react, at the same time draining the body of its fluids through the bowels.

In chronic cases of poisoning, the blood and skin are principally affected. There is a tendency to purulent affections and cutaneous eruptions. Ugly pimples and blotches disfigure the skin; there is weakness, disproportionate appar-

ently to the nature of the lesion, and the general health suffers.

There is little use in physicising people who keep up the dietetic errors responsible for their ill-health. Rotten and imperfectly cooked foods will never make sound, healthy, vigorous and resistant flesh. All the medicines in the world will not repair the primary error.

Meats which are old or half-cooked are invariably suspicious. After death flesh begins to decay, whether kept in cold storage or not. Cold retards, but it cannot prevent, the changes of corruption. Meat softened—made tender by rotting—is not wholesome. Everyone would be shocked at the thought of eating flesh undergoing mortification but for the blunting effects of custom.

People do not, as a rule, reflect upon these things, but take existing conditions for granted. Consequently, physicians should make it their business to explain the importance of securing fresh-killed meats, and seeing that they are cooked thoroughly done.

It will also help the physician in his treatment to inquire into the diet on these heads—raw and rare meats, cold storage and canned foods—when called in to treat obstinate bowel troubles, skin and blood diseases of obscure origin.—*Med. Brief.*

New Method of Determining Human Blood in Medico-legal Cases.

DR. UHLENBUTH (*Dent. Med. Woch.*) reports some interesting experiments. At intervals of six to eight days he injected about ten cubic centimeters of defibrinated ox-blood into the peritoneal cavity of a rabbit. After the fifth injection he used the serum of the animal in the following tests: He took blood solutions of different kinds and strengths, filtered them when necessary, put two cubic centimeters of clear solution in small test-tubes, and added an equal amount of double strength saline solution (1.8 per cent). In this way he prepared absolute clear reddish blood solutions from oxen, horses, asses, hogs, rabbits, chickens, geese, pigeons, etc., and added to each of these six or eight drops of the serum of the injected rabbit. Rather quickly a marked cloudiness occurred in the ox-blood solutions, while all the others remained clear. The cloudiness became more intense, and finally settled to the bottom. Normal rabbit blood gave no cloudiness in the ox-blood solutions. He next injected human blood into a rabbit, and this serum would only give a cloudiness with human blood.

The blood of an ox, a man, and a horse, after having been dried on a board for four weeks, was dissolved in the saline solution, and each could be differentiated by these methods. The tests are very delicate and may prove of great value in medico-legal cases, if other investigators can confirm these experiments.

Seven Thousand Dollars for the Loss of an Eye.

THE Court of Civil Appeals of Texas, says, in the case of the De La Vergne Refrigerating Machine Company vs. Stahl, that the verdict here returned of \$8,000 is much larger than that in any case which it has been able to find, or which counsel seem to have been able to find, involving the loss of an eye, with the usual consequences of such injury. Here the party seeking to recover damages therefor was a young man, a mechanic; 24 years of age, when hurt. And while the court considers \$8,000 as excessive compensation in such a case, it holds that the loss of an eye is a serious injury, and says that it will affirm the judgment if a remittitur of \$1,000 be made from the \$8,000.—*Jour. Amer. Med. Assoc.*

THERAPEUTICS & PHARMACOLOGY.

Action of Arsenic on the Skin.

H. G. BROOKE and LESLIE ROBERTS (*British Medical Journal*) give an account of the effects of arsenic on the skin, based on the recent epidemic of beer-poisoning in the north of England. The following lesions were found: Erythemas of various kinds, mostly diffuse, and situated on the trunk and limbs. Some resembled chill-blains, others erythema multiforme. The colour was at first red, but afterwards changed to copper. Herpes was common and always unilateral. Pemphigoid eruptions occurred some time after beer-drinking had ceased, and affected chiefly the hands and feet. Hyperidrosis was frequent. Pigmentation occurred both with other skin lesions and independently of them. The colour varied from dirty-brown almost to black. The chief parts affected were the axilla, groins, and neck; the palms, soles, and face being less coloured. The characteristic feature of arsenical pigmentation is the variation in tint of contiguous areas. The mucous membranes showed no coloration except a blue line on the gums. Hyperkeratosis is characteristic of arsenical poisoning, and was generally found on the palms and soles. In many cases these were covered with arsenical warts. The nails were unaffected in most cases, but in some there was increased rate of growth. The hair was unchanged. Desquamation is the rule in arsenical poisoning. Fatty degeneration affects the walls of the small blood-vessels, leading to ecchymosis. With regard to the mode of action of arsenic, the authors conclude that arsenic and the other members of the nitrogen group differ from all other medicaments by the fact that their action is dynamic and due to the development of active oxygen in the tissues.

Sun Baths in the Treatment of Tuberculous Joints.

ACCORDING to the *Medical Times* for Milliez, unlike FINSEN, of Copenhagen, who uses the ultra-violet rays of the spectrum in the treatment of lupus, has employed the rays of sunlight to act on tuberculous joints. He disapproves of the systematic fixation of the limb in which the tuberculous lesion is situated. The patient is placed on a suitable couch in the sunniest part of a garden or other open place, with the affected joint fully exposed to the rays of the sunshine. To protect the head of the patient, some sort of sunshade may be improvised. If the upper limb is the seat of the disease, the patient may preferably be allowed to walk about in the garden. The duration of the sun bath should be several hours a day. During the intervals the joint is covered with wool and rather firmly bandaged. Sometimes after the first or second bath the joint becomes more painful, but this soon passes away in most cases; but if it should continue it may be necessary to intermit the treatment for several days. Rapid pigmentation of the sun's rays has been noticed to coincide with comparatively quick recovery. The joints are said to become smaller, the skin healthier-looking, the discharges, if such are present, less purulent, and the fistulae close. Such results, however, may require months of treatment.

Blood-letting in Pneumonia.

CORRADINI ROVATTI reports a case in which blood-letting gave immediate relief to the patient, causing a diminution in the sharp pains at the apex of the left lung, causing the pulse to become strong, full and more rapid, and lowering the temperature from 40° C. to 38° C. A deep and refreshing sleep followed the procedure, and although the patient remained in a condition of weakness for several days, he was practically cured by this measure. Blood-letting overcomes passive congestion with the cyanosis, dyspnoea, etc., attending it, and also in infective diseases of the respiratory tract eliminates a large part of the toxic substances from the circulation. It also brings relief to an overworked heart, facilitates breathing and oxidation, and increases the elimination of urine. In all cases of pneumonia in robust subjects, bleeding should be practised.—*Gazzetta Medica Lombarda*.

Correspondence.

COLONEL LAWRIE, I.M.S.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—May I ask how it is that a public benefactor of the genius and repute of Colonel EDWARD LAWRIE, I.M.S., who may with justice be termed a true friend of India, is to be allowed to leave this country without some signal mark of appreciation from the local medical profession? Surely he is richly entitled to an expression of our gratitude and of our esteem in some public manner. Surely the "picture gallery" of the *Record* ought to open its doors to so distinguished a member of the Indian Medical Service, especially when men of pigmy-like importance, compared with LAWRIE, have found a place in the "gallery." Might I suggest that a subscription be raised among the *alumni* of the Calcutta Medical College, where Dr. LAWRIE was for so many years a teacher of physiology and clinical surgery, and of the Hyderabad Medical School, where Dr. LAWRIE did the best work of his life for the benefit of medical science and for the lasting good of every medical man of Hyderabad, and that from the money so raised, two large pictures of Colonel LAWRIE be bought—one to be hung up in the lecture hall of the physiology class of Calcutta, and one in the large lecture room of the Hyderabad School. Further, may I suggest that a *fac-simile* of such picture be reproduced in the *Record*, and that a sketch of Colonel LAWRIE's life work in India be published with it? Few men in the Indian Medical Service have given up their lives in so self-sacrificing a manner for the good of the people of India as Dr. LAWRIE has done. He held on to his work in the Medical School at Hyderabad at the expense of promotion and advancement in the I.M.S. for it is well known that the highest post of that grand old service would have been his, had he given up Hyderabad and accepted administrative promotion.

Yours, &c.,

G. H. M. S.

CIVIL ASSISTANT SURGEONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—With reference to "TOMTIT, M.B.S." reply to my letter regarding the Deputy Superintendentships of sub-divisional jails in Bengal, published in your issue of the 24th April last, I have to thank him on behalf of the Bengal Assistant Surgeons for his practical suggestions and steady interest in the subject.

The system in vogue in the subdivisional jails (5th class jails) in the North-Western Provinces and Oudh is well known to our present Inspector-General of Civil Hospitals, Colonel MCCONACHY, and the injustice of the Bengal system is so apparent, that it has only to be brought to his notice for being redressed. In Bengal an Assistant Surgeon attached to a sub-jail is only a Deputy Superintendent (which in plain terms means the Deputy Magistrate's jail clerk), while in the N.-W. Provinces he is himself the Superintendent. In Bengal he has got to do all the clerical work of the jail, while in the N.-W. Provinces that work is done by the jailor or the *daroga*, in Bengal he is liable to be fined if he fails to submit his returns punctually, while nowhere else such an anomaly exists.

Full informations on the subject have been already published in your columns, and if at this stage you use

your able pen to keep up the subject, we feel sure that this long-felt grievance will be removed, and you will earn the gratitude of the Bengal Assistant Surgeons.

Yours, &c.,
SUB-DIVISION.

TENURE OF APPOINTMENT OF MEDICAL OFFICERS AT DEHRA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Will you kindly favour me by stating what is the tenure of appointment of the Civil Surgeon and Assistant Surgeon at Dehra? Formerly the Civil Surgeon and Hospital Assistant in charge of the dispensary (now Civil Hospital) were allowed to remain there for an indefinite period, which, to say the least, was unavoidable, but now I understand these appointments are limited to three years, similar to that in the hills. This is no doubt a boon to those who would like to have a tour of service so close to the hills north of Dehra.

I make no comment on this proceeding as regards the Assistant Surgeon who has been thrice temporarily transferred within a period of five years and permitted to return again; but I should be glad to know whether it meets with the approval of the general public.

Yours, &c.,
ENQUIRER.

MEDICAL ADVERTISING IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The annexed advertisement appears in the *Calcutta Statesman*, Sunday last:—

"A CARD."

"DR. MRS. ALICE VAN INGEN, M.D., L.S.A. (LONDON),
Gold Medalist in Midwifery and Diseases of Women
and Children.

No. 21, ROYD STREET.

Open to Town and Mofussil Engagements."

This "Card" is unprofessional in a lay paper. May I ask where Mrs. VAN INGEN got her "gold medal." Was it in Brussels, London, or Bombay? The M.D. of Brussels is good, the L.S.A. of London is also good; but why does not Mrs. VAN INGEN give her L.M. & S. of an Indian University some credit? Surely if she is of Dutch and Indian descent an Indian training ought not to be ignored.

Yours, etc.,
L. M. S. MADRAS.

INCINERATORS IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Some years ago the correspondence and editorial columns of the *Record* teemed with sharp denunciations of the incineration of refuse in the city of Calcutta. If I remember rightly, it was the condemnation of the *Record* that led to the stoppage of incineration of refuse in HARRINGTON'S incinerators at the east end of Dharamtala Street, and that tall pile of brick has since been known as "HARRINGTON'S folly." May I know if circumstances have so altered the atmospheric conditions of Calcutta, or if the genius of HARRINGTON has so improved the disposal of refuse by burning, that the Calcutta Municipality is preparing to repeat its experiments in this direction without a word of protest or explanation from the *Record*.

Yours, &c.,
D. P. H. CAME,

THE EDITOR'S HEALTH.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Your readers will have read with unfeigned delight the paragraph regarding the health of the much esteemed brother who edits India's favorite medical journal. It is indeed good news to hear that our dear old friend, our staunch and sturdy advocate, Dr. WALLACE, is well and working. The unpleasant and discouraging rumours all over India about his physical breakdown were given out with so much "confidence" as to make-believe that his medical advisers had issued an authorized "bulletin" concerning his health. Personally, I wish him long life and prosperity, and I am sure I but express the earnest and heart-felt wish of every reader of the *Record* when I say that we fervently pray that his life may long be spared for the good of the medical profession of this empire.

Yours, &c.,
A MILITARY ASSISTANT SURGEON &
L.R.C.P. & S., EDIN.

TRADE NOTICE.

ST. LEHON'S WINE.

MANY wines have had their day in India. Many have been extolled as veritable elixirs, and after a brief trial have ceased to be a source of profit to their enterprising exporters. Nothing but a genuine article, thoroughly able to bear the test of time and experience, can hold its own in India. The European and the native community seem too wide awake to be taken in by "chaff," and so exporters find to their cost if an article which is not stable enough to stand on its own merits is palmed off by well blazoned advertisements as something worthy of notice, when it really possesses no substantial claim to support or trial.

St. Lehon's wine has bid fair to become a "resident" of the tropics. Few wines have won such signal popularity with the medical profession, and few have won such rightful confidence upon their intrinsic merits. St. Lehon's wine is a genuine restorative. It has maintained one standard of quality for the past two years of careful trial and experiment, and that quality is "excellent." It is a splendid tonic, both to the blood and the nervous system, and will stand its own as a most reliable means of combating climatic debility and other diseased conditions which demand stimulants of a trustworthy and harmless type.

Government Medical Gazettes.

INDIA.

Capt. O. T. Hudson, I.M.S. (Bombay Estab.), Deputy Assay Master, substantive *pro tempore*, is confirmed in that appt. from the 17th Sept. 1900.

Capt. O. T. Hudson, I.M.S. (Bombay Estab.), Deputy Assay Master, is granted, from the 4th May 1901, privilege leave for three months with special leave on urgent private affairs for three months in continuation.

Lieut.-Col. A. F. Dobson, M.B., Indian Med. Service (Madras), an Agency Surgn. of the 2nd class, is posted, on return from special leave, as Residency Surgn. in Mysore, from the date of assuming ch.

Lieut.-Col. P. H. Benson, M.B., Indian Med. Service (Madras) Senior Surgn. and *ex-officio* Sany. Commr. with the Govt. of Mysore, was on privilege leave from the 27th June to the 16th Sept. 1900.

The undermentioned offr. is granted furlough out of India :
Lieut.-Col. P. H. Benson, M.B., Indian Med. Service (Madras), Senior Surgn. and *ex-officio* Sany. Commr. with the Govt. of Mysore (p. a.) for six months, under Rule IX of the Regulations of 1868.

Major J. Smyth, M.D., Indian Med. Service (Madras), is apptd. to officiate as Senior Surgn. and *ex-officio* Sany. Commr. with the Govt. of Mysore, with effect from the date of assuming ch. and during the absence on furlough of Lieut.-Col. P. H. Benson, M.B., Indian Med. Service (Madras).

Capt. E. W. Hore, Indian Med. Service (Bengal), an Agency Surgn. of the 2nd class, and Residency Surgn. in the Persian Gulf, is granted privilege leave for fifteen days from the 1st April 1901, and is also granted furlough for nine months.

Col. B. Franklin, G.I.E., I.M.S. (Bengal), Inspector-Gen. of Civil Hosp., Punjab, is granted privilege leave for five weeks from the date on which he may avail himself of it.

The services of Capt. E. R. B. Swiney, 9th Gurkha Rifles, are replaced at the disposal of His Excellency the Commander-in-Chief.

The services of Capt. V. A. Ormsby, 1st Battalion, 3rd Gurkha Rifles, are placed tempy. at the disposal of the Govt. of the N.-W. Provinces and Oudh for employment on plague duty.

The services of Col. A. M. Branfoot, M.B., G.I.E., I.M.S. (Madras), are placed tempy. at the disposal of the Govt. of Madras from the 10th April 1901.

The services of Lieut.-Col. J. Duke, Indian Med. Service (Bengal), an Agency Surgn. of the 2nd class, are replaced tempy. at the disposal of the Milly. Dept. from the date on which he may relinquish ch. of the duties of Residency Surgn. in Kashmir.

BOMBAY.

Hosp. Asst. Lillaram Utamchand, from Locomotive Dispy., Sukkur, to gen. duty, Sukkur.

Hosp. Asst. Lekhtaj Lalchand, from Manora Dispy., to gen. duty, Karachi.

Hosp. Asst. Beghraj Chundumal, from gen. duty, Sukkur, to gen. duty, Karachi.

Hosp. Asst. Lillaram Utamchand, from gen. duty, to Keti Bunder Dispy.

Hosp. Asst. Lillaram Nanumal, from gen. duty, Kotri, to N.-W. Ry. Hosp., Kotri.

Hosp. Asst. Obolthram Shiwarem, from N.-W. Ry. Hosp., Kotri, to Shadipalli-Balotra Ry. Works, Nara.

Hosp. Asst. Lekhtaj Lalchand, from gen. duty, Karachi, to plague duty, Town Karachi.

Hosp. Asst. Lal Mahomed Fatteh Mahomed, from N.-W. Ry., Kotri, to Plague Hosp., Karachi.

Hosp. Asst. Govindram Utamchand, from gen. duty, Sukkur, to Dispy. Tatta.

Hosp. Asst. Lillaram Nanumal, from N.-W. Ry. Hosp., Kotri, to Central Prison Hosp., Hyderabad.

Hosp. Asst. Giridharilal Dhunaji, from gen. duty, Umarkote, to Tarusha Dispy.

Hosp. Asst. Ambalal Motilal Shah, from famine duty, to gen. duty, Bombay.

Hosp. Asst. Ambalal Motilal Shah, from gen. duty, Bombay, to plague duty.

Hosp. Asst. Syed Hanifuddin, from gen. duty, to Dispy. Sirur.

Hosp. Asst. Mullu Suraji, from Dispy. Sirur, to Civil Hosp., Ahmednagar.

Hosp. Asst. Munjanath Timappa, from Civil Hosp., Ahmednagar, to Cowasji Jehangir Ophthalmic Hosp., Bombay.

Hosp. Asst. Manekral Pranebaker, from Cowasji Jehangir Ophthalmic Hosp., Bombay, to West Hosp., Rajkote.

Hosp. Asst. Gopal Raghunath, from gen. duty, to Dispy. Rajapur.

Hosp. Asst. Raghunath Vithal, from gen. duty, Bombay, to Dispy. Shirpur.

Hosp. Asst. Shripat Nicum, from Dispy. Baramati, to Gokuldas Tejpal Hosp., Bombay.

Hosp. Asst. Govind Ranghath, from Gokuldas Tejpal Hosp., Bombay, to Dispy. Baramati.

MADRAS.

Capt. Fayrer, I. M. S., to act as Professor of Hygiene, Med. Coll., during the employment of Dr. Grant on other duty.

The services of Colonel A. M. Branfoot, M.B., G.I.E., I.M.S. (Madras), are placed tempy. at the disposal of the Govt. of Madras, from the 10th April 1901.

The undermentioned offrs. are permitted to retire from the service, with effect from the date specified, subject to His Majesty's approval :—

Lieut.-Col. Arthur Henry Leapingwell, Indian Med. Service (Madras), Dist. Med. and Sany. Offr. and Supdt., Lunatic Asylum and Jail, Vizagapatam.

Lieut.-Col. T. J. Hackett-Wilkins, I.M.S., Dist. Med. and Sany. Offr., Malabar, privilege leave for two months from or after the 15th May 1901.

BENGAL.

Asst. Surgn. Pramatha Nath Banerjee did supy. duty at the Murshidabad Dispy. from the 13th Feb. to the 5th Mar. 1901, and at the Berhampore Hosp. from the 6th to the 8th Mar. 1901, respectively.

Asst. Surgn. Satis Chandra Banerjee, of the Samastipur Subdn. and Dispy. in the Darbhanga dist., is apptd. as House Physician, 2nd Physician's Ward, in the Med. Col. Hosp., Calcutta, vice Asst. Surgn. Hari Nath Ghose.

Asst. Surgn. Hari Nath Ghosh, House Physician, 2nd Physician's Ward, in the Med. Col. Hosp., Calcutta, is apptd. to the Samastipur Subdn. and Dispy. in the Darbhanga dist., vice Asst. Surgn. Satis Chandra Banerjee transferred.

Each of the following Civil Surgeons is apptd. *ex-officio* a Registering Offr. for the dist. to which he is apptd. :—

The Civil Surgn. of Ranchi; Hazaribagh; Palamau; Manbhum; Singhbhum.

Each of the following offr. is also apptd. *ex-officio* a Registering Offr. for the station to which he is apptd. :—

The Asst. Surgn. at Giridih; the Rural Sub-Registrar at Gobindpur; The Dist. Med. Offrs. of the Bhagalpur Divn.; The Civil Hosp. Asst. at Begueral.

Asst. Surgn. Bana Mali Roy is allowed privilege leave for one month, from the date on which he is relieved of his duties.

Asst. Surgn. Syed Hassan did supy. duty at the Med. Col. Hosp., Calcutta, from the 9th to the 13th April 1901.

Asst. Surgn. Syed Hassan is apptd. to act as Inspr. in ch. of the Animal Vaccination, Depôt, Calcutta, from the 13th April 1901, during the absence, on deputation, of Asst. Surgn. Hari Pado Mukerjee.

Lieut.-Col. H. C. Banerji, I.M.S., made over ch. of the Khulna Jail to Asst. Surgn. G. C. Mukerji, B.A., M.B., on the 18th April 1901.

Mr. W. A.C. Beadon made over ch. of the Dacca Central Jail to Mr. M. S. Emerson on the 20th April 1901.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

MARRIAGE.

WALLIS MILLS—GREG.—On 30th April, 1901, at St. Mary Abbots, Kensington, Maud, youngest daughter of Colonel John Greg, late R. A. M. C., of Ealing, to Arthur Wallis Mills, youngest son of the late Rev. Michael Edward Mills, late Senior Chaplain, H. M. Regal Ecclesiastical Estab., India.

DEATHS.

O'MEARA.—On the 26th April, 1901, Gertrude Charlotte, beloved wife of Captain Eugene J. O'Meara, I. M. S., 11th Bengal Lancers, and second surviving daughter of the late Olive Hollingworth, Esq., and Mrs. Hollingworth, of Mid-lands, Westend, Southampton.

JOHNSON.—On the 19th March 1901, at Uxbridge, in England, Samuel Wellesley Johnson, M. B., C. M., late Staff Surgeon, Royal Navy, youngest son of the late Mr. William Johnson, Assistant Registrar, High Court, Allahabad, aged 41 years and 4 months.

ORIGINAL ARTICLES.

TO CUT OR CRUSH IN STONE OF THE URINARY BLADDER.*

BY STUART McGUIRE, M.D.,

*Professor of Principles of Surgery and Clinical Surgery,
University College of Medicine; Surgeon in Charge St.
Luke's Hospital; Visiting Surgeon, Virginia
Hospital, Richmond, Va., U. S. A.*

THE question whether to cut or crush in cases of stone in the urinary bladder is no new one, as lithotomy and lithotrity have both been practised for over a thousand years. The opinion of the profession as to the relative value of the two methods has varied, first one, and then the other, gaining ascendancy.

In the first century CÆLIUS wrote a clear description of lithotomy, and the operation was frequently performed. In the tenth century ALBUCAHIS described an instrument which could be passed along the urethra, "seize the stone, crush it if soft, and remove it." In the seventeenth century BEAULIEU, a Franciscan monk, performed several thousand perineal lithotomies, and is reported to have operated on thirty-eight consecutive cases in Versailles without a death.

In 1815 CIVIALI invented his litholabe, and some years afterwards reported seventy-eight cases in which he had crushed and removed stone, with five deaths. In 1878 GROSS advocated the cutting operation and reported 165 lithotomies, with 14 deaths. In the same year BIGELOW invented his evacuator, and the possibility of doing lithotrity at one sitting (or litholapaxy as it was then called) created great enthusiasm. In 1884 HENRY THOMPSON reported 116 cases of lithotrity, with six deaths. In 1890 HUNTER McGUIRE reported twenty-six cases of suprapubic cystotomy for stone, with one death. In 1893 CHURCH reported 54 cases of lithotrity, done by a series of short sittings under cocaine, with no deaths.

Having attempted to show the curious vacillation of surgical opinion as to the relative merits of the two operations in the past, I will now try to find expression for the accepted views of the present. I believe it can be most fairly done by quoting from new and standard text-books which treat of the subject.

White and Martin.—"The two received methods of treatment are litholapaxy and cystotomy. Litholapaxy is, in both adults and children, the method of choice."

Lydston.—"The suprapubic operation is so safe in favorable cases that it is preferable to litholapaxy unless the surgeon is expert in its performance."

An American Text-Book of Surgery.—"The possible methods of removing a given stone from the male bladder are perineal lithotomy, suprapubic lithotomy and litholapaxy. The remarkable changes brought about by the introduction of the lastnamed method has greatly reduced the field of the first two."

Wyeth.—"The conditions in which lithotrity is to be preferred to lithotomy are rare."

Troves.—"Litholapaxy is now the recognised operation for all cases of vesicle calculi in males."

Moullin.—"Calculi must be removed from the bladder by crushing or cutting. The former is more common and has to a great extent superseded the latter."

Wharton and Curtis.—"Lithotomy is indicated in cases not suited for crushing, although the recent improvements in suprapubic cystotomy bid fair to make it the rival of the method by crushing in all cases."

From the extracts given, it will be seen that both methods are advised; but the surgeon is taught by the majority of authorities to perform lithotrity as the operation of election, and lithotomy as the operation of compulsion. In other words, that the cutting operation should only be done when the crushing operation is impossible. I believe this teaching is a survival of the pre-antiseptic era, and does not accord with the practice of the modern surgeon. Twenty years ago, when the use of the knife was attended by danger to life from septicæmia, or slow and complicated convalescence from suppuration, it was undoubtedly sound; but to-day, with the aseptic and antiseptic technique, and the perfection of the suprapubic operation, it is false and misleading. From a limited personal experience with both operations, and a careful study of the literature of the subject, I believe lithotomy should be the operation most frequently performed, and lithotrity reserved for a few carefully selected cases. The demonstration of the truth of this statement can best be made by a comparison of the advantages and disadvantages of the two operations under separate headings.

Mortality.—Figures seem to show that lithotrity is safer than lithotomy, but in making a deduction from statistics, it must be remembered that they are based largely upon work done before the introduction of antiseptics; that simple and easy cases were crushed, and difficult and complicated cases cut; and, finally, that the results of a few expert lithotritists are compared with those secured by a number of average lithotomists.

Requisite Skill and Experience.—Lithotrity is undoubtedly a more delicate and difficult operation than lithotomy. It is blind surgery, liable to be attended by annoying complications or dangerous accidents, and should not be undertaken by one not thoroughly familiar with the manipulation of instruments in the urethra and bladder. Lithotomy, especially if done by the suprapubic route, is one of the simplest operations in surgery, and may safely be attempted by any one of fair experience in general operative work.

Injury to the Soft Parts and Septic Sequences.—It is claimed that lithotrity creates no breach of continuity of tissue, while lithotomy leaves a wound of considerable gravity, and therefore the former operation is followed by more rapid recovery. This is true in selected cases in the hands of expert operators, but in many instances where the stone is large and hard, and the surgeon less experienced, manipulations are prolonged and rough, and there is considerable bruising and

* Read before the Tri-State Medical Association of the Carolinas and Virginia, held in Richmond, and reproduced from the *Charlotte Medical Journal* by request.

laceration of the mucous lining of the urethra and bladder. Copious hemorrhage is not uncommon, and the bleeding points are inaccessible to direct hæmostasis. There is practically no drainage, and septic sequences sometimes follow, manifested by urethral fever, urethritis, cystitis, prostatitis, epididymitis or phlebitis.

In lithotomy, especially if done by the suprapubic method, there is no contusion of the mucosa of the urinary tract, but simply a clean cut incision through unimportant structures. There is practically no bleeding, and if it does occur from complications, it can be controlled by the ligation of vessels or direct tamponade of the bladder. If sepsis follows, which is unlikely, owing to the free drainage afforded, it can be combated by irrigation of the wound, bladder and urethra with antiseptic solutions. The duration of convalescence after lithotripsy is uncertain. It may be shorter than lithotomy—it may be longer.

Ability to Diagnose and Treat other Pathologic Conditions.—Stone in the bladder is usually found at the two extremes of life. In the young, it is usually uncomplicated; in the old, it is often associated with enlargement of the prostate, severe cystitis, or vesicle tumors. Lithotomy has the advantage in both instances, as it avoids the dilatation of the undeveloped penis and small urethra of the one with the danger of incontinence and impotency; and affords direct examination of the interior of the bladder in the other, making accessible to surgical correction any co-existing disease present, and affording subsequently the necessary drainage of the cavity of the viscus.

Permanency of Results.—There is certainly more liability to the recurrence of stone after lithotripsy than after lithotomy. In old men with enlarged prostates it is impossible to be sure of removing all fragments after crushing, and it is also possible to overlook a small stone in cases of multiple calculi. If a single particle is retained in the bladder, it will act as an exciting cause to the predisposing diathesis and result in the production of a new stone. I recall the case of an old man with a sacculated bladder who was twice crushed for stone. On his third return to the hospital I did a suprapubic lithotomy and removed five small calculi. Since then he has remained well.

Simplicity and Freedom from Mechanical Complications.—While questions of economy have no place in surgery, and the fact that lithotrites and evacuator are expensive and perishable is no argument against lithotripsy, the simplicity and freedom from dependence on the mechanical action of complicated instruments is a strong point in favor of lithotomy. Many cases are reported where surgeons had clogging, bending or breaking of the blades of a lithotrite to occur in the bladder, and were forced to resort to the knife to complete the operation. Only recently I found myself in a predicament which would have been ludicrous if it had not been dangerous. I was crushing a soft stone of medium size in the bladder of a boy aged seventeen, who weighed nearly three hundred pounds; the operation of lithotripsy being selected on account of the patient's obesity. The stone was readily

seized and crumbled at the first turn of the screw. The instrument was open, and reversed, the fragments caught and broken. It was then observed that the blades would not close. Every known expedient was tried to free the impaction, but failed. A suprapubic cystotomy was finally done, a sticky, gummy mass cleared from the jaws of the lithotrite and the instrument closed and withdrawn. A subsequent interrogation of the boy secured the confession that some time before his admission to the hospital he had introduced a bolus of chewing-gum into his urethra, which had slipped from his grasp and passed into the bladder, doubtless forming the nucleus of the stone.

Range of Application.—Lithotomy may be done in any case, and has no limitations other than those of general surgery. Lithotripsy is admitted by its advocates to be contraindicated in the following conditions:—

- 1st. When the stone is hard and cannot be crushed by instruments capable of being used through the urethra.
- 2nd. When the stone is large and cannot be grasped by reasonable separation of the jaws of the lithotrite.
- 3rd. When the stone is brittle and the resulting fragments sharp and irregular.
- 4th. When the stone is fixed and encysted.
- 5th. When the stone has a foreign body as a nucleus, which cannot be crushed and removed.
- 6th. When the prostate is enlarged, or the bladder contracted, making it difficult to seize the stone.
- 7th. When there is a tight or impassable urethral stricture, requiring a long operation to relieve.
- 8th. When there is ankylosis of the hip-joint in a position embarrassing the movements of the lithotrite.
- 9th. When the general condition of the patient is such as to make shock dangerous and rapid work necessary.

In corroboration of the above, I wish to exhibit some specimens of stone with foreign bodies as nuclei removed by my father, Dr. HUNTER MCGUIRE, by lithotomy. It is obvious that an effort to operate by lithotripsy would have resulted in failure.

In the history of the cases on which he operated for vesicle calculi, there are nine instances of stones with foreign bodies as nuclei, as follows: Four hairpins, two bullets, one piece of bone, one piece of gum catheter, and one section of a silver catheter. One of these specimens has been lost, one was destroyed by the patient, three are now in the Army and Navy Medical Museum, and the other four are herewith presented.

I also wish to report a case in which I acted as his assistant. As soon as the stone was caught in the blades of the lithotrite and subjected to pressure, it flew to pieces as if it were glass. The operation of lithotripsy was at once abandoned, and the bladder opened above the pubes. The fragments of the stone were gently removed with the finger, and were found to have razor-like edges, which would undoubtedly have seriously injured the walls of the viscus had the first operation been continued.

Conclusion.—For fear of being misunderstood, permit me to repeat the views I maintain in regard to the two

operations. I do not condemn the crushing operation, for I believe it is the best method to employ in certain cases. What I do condemn is the abuse of the operation by the efforts of its advocates to substitute it for the cutting operation in cases for which it is not suited. As previously stated, I believe *lithotomy should be the operation most frequently employed, and lithotomy reserved for a few carefully selected cases.*

FOOD AS MEDICINE.*

BY J. FRANK KAHLER, M. D.,

Canton, Ohio, U. S. A.

I SHALL attempt to present my subject, not because of expecting to present some fast rules of diet in disease or health, for this is impossible; neither that I feel able to present many new things on the subject; but rather that I hope to drop at least one thought which may be of interest to this society. This being done, then, I shall feel amply rewarded for this effort.

We should always be ready and able to give a patient an opinion as to diet; and in acute diseases prescribe a regimen. I consider this a duty incumbent on a physician, perhaps more so, frequently at least, than it is a duty to prescribe drugs. Many a person, sick or well, preferred a savory and tempting dish, even if not so nourishing or digestible; and often the palatability made it more digestible, in spite of chemistry and physiology to the contrary.

Therefore, in patients suffering from some subacute or chronic lesion, it is often wise for us to consider the appetite of a patient before prescribing a definite regimen.

I shall base my conclusions on this principle, as given by FOSTER, then whom we have, perhaps, no better authority, that carbohydrates, *i. e.*, the sugars, are absorbed mostly by the capillaries of the villi, through the intestinal epithelium, and these enter into the portal vein.

The fats are absorbed mainly by the lacteals and pass through the thoracic duct into the venous system. FOSTER further states that the absorption of the proteids or peptones are less understood and more difficult to follow; but that they are absorbed mostly by the capillaries, and as soon as they pass into the blood, all trace of them is lost. It is believed by many that the leucocytes are mostly concerned in the absorption of proteids and fats.

And, further, a carbonaceous diet taxes the excretory organs to a lesser degree than animal food. However, I am not an advocate of an exclusive non-nitrogenous diet, either in health or diseases; but I firmly believe that the abovesaid conditions are excellent indices for us in prescribing foods in certain forms of acute diseases.

In all acute infectious diseases we have an increased diapedesis of leucocytes; the degree of wandering white corpuscles or number depending on the acuteness and malignancy of infection and height of fever.

It is the object of these wandering cells, to incorporate within themselves foods and toxic products or micro-organisms, one or both of which are found in all infectious or contagious diseases.

The more healthy and vigorous these phagocytes are, the more able they will be to meet these germ enemies and incorporate them within themselves, take them back into the circulation, and thus throw them off by way of the excretories (*i. e.*, kidneys, skin, &c.) Now if, on the other hand, during the period of an acute infectious lesion, we feed the patient on the albuminous foods largely (which kind of food *especially* is taken up directly by the white blood corpuscles), we thereby increase the labor of these cells, thus diminishing their capacity for absorbing the toxic products.

Water should be taken in large quantities, in all forms of toxæmia, for this increase in the fluid of circulation increases phagocytic diapedesis and amoeboid movement, resulting in increased "taking in" and "throwing out" of all forms of toxic products.

Water is never contraindicated, unless for brief periods, as when it increases nausea.

Someone has said that when a dyspeptic patient asks us the question, "What shall I eat?" reply, "Eat what you like." If he asks, "How much shall I eat?" say to him, "Eat as much as your appetite demands." Although I do not favor strict and dietetic rules, nevertheless, I deem the abovementioned remarks as going too far.

The capriciousness of appetite is never a safe guide; but a *natural* longing for foods is a good index for the selection of food.

Therefore, in prescribing a regimen for patients who are afflicted with some acute infectious or contagious disease—with due consideration for the *natural* longing for certain foods—we should make our selections largely from the non-nitrogenous foods.

Too free indulgence in the proteids are especially harmful in the more severe infectious diseases, such as typhoid, &c., because of the increased tax on the leucocytes in the metabolism of the proteids, and because of the greater strain on the eliminative organs.

So much has been written about the feeding of typhoid patients. It is my conviction that to prescribe a regimen in this disease scientifically, we should exclude the albuminous foods.

Therefore, the foods *par excellencis* are the starches and fruit. The carbohydrates should be cooked for from four to twelve hours. Fruit selected from well-developed products baked or stewed for from two to ten hours, so as to convert or approach the conversion of these foods into dextrin before it is ingested. When thus prepared, this class of foods is more readily assimilated and produces less residue than proteid foods.

We believe in a wide range from which to select foods in enteric fevers. In presenting a diet list for a typhoid patient, during the course of the disease we may select from the following foods, bearing in mind the *natural* food desire:—

* Read at the 117th Quarterly Session of the Union Medical Association of N. E., Ohio, held at Akron, and reproduced from the *Charlottesville Medical Journal*.

Bread, dried and served hot, never served half an hour after having been prepared, neither toasted brown; rice, barley, flour or oatmeal broth. These starches should be boiled for eight to twelve consecutive hours. Young peas are excellent and should be boiled six hours. Tomatoes strained and well boiled are good. The early vegetables which grow above the earth's surface are nearly all easily assimilated, and we would frequently permit the use of asparagus, and if the bowels are obstinate, spinach may be frequently prescribed with advantage.

Fruits are admissible, but should be carefully selected. The banana, in its true home, where it becomes mature before picking, forms an important part of the diet of the inhabitants, and it is the nearest perfect fruit food that grows.

This variety, however, used then in an uncooked condition, will not bear transportation; consequently those which are sold in our markets are of an inferior variety, picked long before they are ripe or mature, and the ripening of which is almost a premature decay.

They are exceedingly difficult of digestion, consequently we should never prescribe the ordinary banana. But if banana meal can be procured, which has been made from ripe fruit in its native home, we can prescribe it in many typhoid cases with impunity.

All other fruits contain very little nourishment; but because of the flavor and frequently stimulating digestive secretions, we sometimes prescribe orange juice, well-baked apple or stewed peach, lemon, with very little sugar—this frequently assists proteid digestion.

The abovementioned starch-foods may frequently be flavored advantageously with the abovenamed fruit juices or vanilla.

There are two reasons why milk should not be the principal food in enteric or in acute infectious fever. First, because massive curds are formed in the stomach, which are very hard to digest, and there is more residue than in many of the starchy foods.

Second, because in the oxidizing process of this class of foods, more effort is required on the part of the white cells and the eliminative organs. If, however, milk is very palatable in a given case, and it is sipped or well diluted, it may be prescribed.

In typhoid we have self-consumption of tissues, in spite of all we can do; therefore, in approaching a physiological metabolism, the non-nitrogenous foods are indicated.

CEREBROSPINAL MENINGITIS.*

By WM. J. CRITTENDEN, M.D.,

Unionville, Virginia, U. S. A.

IN the presentation of this paper, I do not know that I shall present a single new idea, that I shall introduce a single suggestive thought, that I shall make an utterance which will make an imprint or impress on your minds, but my main object in introducing this paper is to elicit a discussion which will reveal some of the hitherto hidden points in the treatment of this malady, which will make more homes happy and fewer hearthstones desolate.

HISTORY.

Vague rumours were afloat of it during the 15th and 16th centuries, but the first authentic account of it was published by VISSIKUX, of Germany, in 1805.

It prevailed in Massachusetts in 1806, in Philadelphia in 1865, in New York City in 1871-72, in Canada in the valleys, along the windings of the rivers, as well as the meanderings of the smaller streams, in 1873.

Since that time its prevalence as an epidemic has not been so marked.

* Read before the Rappahannock Valley Medical Society, and reproduced from the *Charlottesville Medical Journal* by request.

PREVALENCE.

Sporadically, endemically, epidemically, and pandemically. It is seen most often during the winter and spring months, affecting both sexes alike, and a marked preference for children, though epidemics do occur in which only adults are affected.

CAUSES.

The specific cause is the micrococcus lanceolatus.

HABITAT.

In temperate climates and the northern parts of temperate climates, in crowded tenement houses, among soldiers in barracks, whose vitality has been lowered by long marches and active campaigns.

During the present year I have seen it among negroes who were overcrowded, underfed, and exposed to all the vitiating influences of life.

PATHOLOGY.

It is an inflammatory affection of the membranes of the brain and spinal cord, with its attendants, effusions, organization, and, perhaps, suppuration; not only affecting the membranes, but producing softening of the brain, effusion into the ventricles of the brain, suppuration of the ear, of the eye, affecting the organs of special sense, viz. sight and hearing.

It has been found as we go down the spinal cord that this organization increases, both in quantity and its cheesy quality, thus producing pressure.

COMPLICATIONS.

Pneumonitis, pleuritis, bronchitis, pericarditis, endocarditis, effusion into the cavities of the joints, &c. Therefore, with this wide pathological range, we may expect every variety of clinical symptoms to which human flesh is heir.

SYMPTOMS.

Usually between noon and midnight it commences with a distinct chill, followed by high fever, quick pulse, quick respiration, intense pain in the head, eyes and photophobia, pain in neck and back, and in the cervical and lumbar regions—with stiffness in neck and back—with great pain on movement, often so intense that it causes the patient to cry aloud.

Pupils are usually contracted at first, and later on become dilated or irregular; the tongue is coated, at first light, then it becomes heavy.

Nausea and vomiting often make their appearance very early in the disease, bowels are constipated and abdomen retracted; later on in the disease it often becomes puffed and diarrhoea makes its appearance, the stools often becoming involuntary.

The skin is intensely hyperæsthetic, and from time to time varying with the date of the disease, from small eruptions to mottling of the skin, may be seen the spotting to which so much importance is often attributed.

Every spinal nerve in the body may be affected, both in sensation and motion.

I have often seen patients who presented each day an entire new set of symptoms.

The motor symptoms are well marked; the head is retracted—in some cases I have seen the patient almost rest on the head and heels—the hand is flexed on the forearm, the forearm on the arm; the leg flexed on the thigh, and the thigh on the pelvis.

In some cases I have seen the most intense pain in the stomach.

In some cases we have few symptoms, the patient is taken and dies from profound toxæmia, or he may be taken with headache, languor, general and great depression, general malaise, pain in head, neck and back, and great stiffness.

In children, in place of the chill, we often have a convulsion.

Contraction of the internal and external muscles of the eye are often seen.

DIAGNOSIS.

By attention to its symptoms and to the fact that it often prevails as an epidemic, and that it is communicable from man to the lower animals, and vice versa, will often shed much light and render our diagnosis valuable.

TREATMENT.

Seven points must be kept steadily in mind, viz. (1) Rest—both mental and physical. (2) Freedom from pain. (3) Absorption of effusion. (4) Stimulation. (5) Tonic treatment and treatment to prevent paralytic troubles. (6) Local treatment. (7) Supporting.

1. The patient should be put to bed in a dark, airy room, the bowels thoroughly emptied by means of a mercurial purge, followed by a saline; the hair cut close, preferably shaven, an ice cap to the scalp and one along the spine, and, if any contraindication, the use of heat.

Pain should be relieved at once, and the brain put at rest; for this purpose no remedy is so potent for good as morphine in sufficient doses to produce quiet and sleep, and then chloral, grs. x, and sodii bromidum, grs. xxx, every three hours. If this fails to produce the requisite sleep and quiet, recourse should again be had to morphia.

I have found codeine to fill a fairly good indication, but not so good as morphia.

I have also found hyocyanus to relieve restlessness very much.

2. Freedom from pain should at all times be enjoined. I have found after the acute attacks are over, grs. xxx. sodii bromidum to relieve pain and nervousness to a marked degree.

3. Absorption of effusion. I have never had occasion to desert my first love, viz., pot. iodidum in saturated solution, starting with grs. x and gradually increasing to grs. xxx three times per diem. In the late stages 1-30 gr. hyd. chlor. coros three times per diem until tenderness of the gums is produced.

I often find good results by alternating iodide potash with iodide of lithia.

4. During all this period it is necessary often to stimulate the patient.

For spells of weakness I give ammonia for its immediate effects, and I often find it necessary to use whiskey to sustain the flagging vital powers.

5. To prevent paralytic trouble I know of no remedy comparable to strychnia—acting as a general tonic—toning up the digestive organs, and also preventing paralytic troubles, as well as acting on the nerves of special sense.

6. Local treatment is of much avail—the ice-bag I have spoken of, during the early stages—later on I formerly used blisters. I have discarded them and now use the thermo-cautery.

While I think in some cases blisters do good, but they produce a great deal of discomfort and aggravate the patient, often producing stranguary. The thermo-cautery fills all the indications of a blister without any of the evil effects.

The question of lumbar puncture has a bright future, thus relieving the pressure on the cord which would otherwise take a long time, if not producing baneful effects on the brain and cord.

7. At all times nourishment should be administered regularly; first, nutritious liquid diet, and, as convalescence sets in, a good substantial diet, easily digestible.

If the weather be cool, of morrhue acts well as a general alternative and tonic.

Finally, after all these things are done, we bury many of our patients.

A MIRROR OF PRACTICE.

CASE OF TONSILLAR HÆMORRHAGE: LIGATURE OF COMMON CAROTID ARTERY: RECOVERY.

REPORTED BY WILLIAM HAMMOND, M.B.C.S., and
C. COURTENAY LORD, M.A., M.R.C.S.,

Liskeard Cottage Hospital.

THE following case is published on account of its rarity and its satisfactory ending:—

History.—B. B., a single woman, aged 37, was admitted to the hospital on November 18th, 1900, for hæmorrhage from the pharynx. She had been subject to quinsy all her life, and stated that she recovered with difficulty from the attacks. Her left tonsil was incised for abscess when she was 13 years old. Prior to her present illness she had not been in good health, as she had had influenza twelve months before. In October 1900 she had a sore-throat, which did not go on to quinsy. She was ill for several days, but, on getting better, went to a dentist and had a number of extractions of teeth and stumps under methylene. Two days later her throat got much worse, she quite lost her voice, and was obliged to go to bed. Suppuration of the left tonsil followed; the abscess burst spontaneously in about a week. Two days after the abscess burst she began to spit up blood-stained matter. This continued for several days, but the amount of blood lost was not sufficient to cause alarm. During this stage of her illness patient was extremely weak; there was slight fever, the pulse was very feeble; she could scarcely articulate, but such voice as there was was nasal in character; and nourishment was badly taken. It was impossible to obtain a satisfactory examination of the pharynx owing to closure of the mouth. Slowly her general condition improved, bleeding ceased, the voice returned, and she was able to sit up. Her illness had now lasted three weeks, and there had been no hæmorrhage for two or three days.

State on examination.—On November 17th, at 11 P.M. I was urgently called to see her. She had been retching and the bleeding had returned. She was greatly alarmed, and was spitting up pure blood pretty freely. Opium, cold compresses to the neck, and rest in the recumbent position rapidly controlled the bleeding, which ceased in a couple of hours. On the following day, November 18th, as the bleeding had entirely ceased for some hours, she was carefully removed to the hospital. No further bleeding occurred till 8 A.M. on November 20th, when, after a little retching, it broke out with renewed severity. The throat was cocaine and explored, but no definite bleeding point could be seen, owing to the rapidity with which a fresh clot formed as soon as one was cleared out; at the same time there seemed no doubt that the blood was coming from a deep ulcer at the back of the left tonsil. Pressure over the tonsil from the inside with a tampon of glycerine of tannic acid failed to stop the bleeding. An ice-water nasal douche seemed to have the desired effect, for soon after its use the bleeding ceased. On November 22nd, at 4 A.M., hæmorrhage again set in.

*Reports on Medical and Surgical Practice in the Hospitals and Asylums of the British Empire, and reproduced from the *British Medical Journal*.

the blood being spit up rapidly in clots, most of which were distinctly T-shaped. The patient's condition was now very grave, and although the bleeding was modified by ordinary methods employed for checking it, it was obvious that a further attack would carry her off.

Operation.—Mr. LUCY, of Plymouth, was therefore called in with a view to tying the common carotid. This operation was successfully performed at 5 P.M. For several days the patient was in an extremely critical condition. She was kept alive on saline and nutrient enemata. Bleeding ceased absolutely from the time of the operation. She made a good recovery, and at the time of writing is perfectly well.

REMARKS.

This case raises the question: Why should such severe bleeding occur after an ordinary quinsy? No incision had been made. There was no hæmophilic tendency, for when all the extractions were made there was no unusual loss of blood. We probably had to deal with a case of severe sloughing occurring in a person of extremely low vitality in whom tissue resistance and recuperative power were at the lowest ebb. Some artery, probably the internal carotid, as suggested by Mr. LUCY, became eroded: hence the impossibility of permanently arresting the hæmorrhage by ordinary methods. When the bleeding was at its worst, enough clots to nearly fill an ordinary hospital porringer were expelled in less than an hour.

Remarks by Mr. Lucy.—The interesting features of this case are as follow: That the hæmorrhages occurred after the spontaneous rupture of an abscess in or around the left tonsil. Had an incision been made, the operator would have concluded that he had wounded some important blood-vessel, probably arterial. The source of the hæmorrhage is still a matter of doubt, though looking to the large quantity of blood lost each time and its recurrence, it seems probable that a septic ulceration of the left internal carotid artery had occurred. The result of tying the common carotid artery above the omohyoid muscle, followed as it was by immediate and permanent arrest of bleeding, seems to justify the above conclusion.

Mr. BERNARD PITTS, in discussing the subject of hæmorrhage from the internal carotid artery in the twelfth volume of *St. Thomas's Hospital Reports*, says: "A large repeated hæmorrhage, secondary to abscess in an ordinary healthy subject, is far more likely to proceed from the internal carotid." The reason I tied the common carotid was that the patient had lost so much blood and was brought so low that it was imperative to leave nothing to chance. The age of the patient and the freedom of her other blood-vessels from disease decided me to run the risk of possible cerebral complications. As a matter of fact, no cerebral symptoms followed ligature of the common trunk, and when seen six weeks afterwards, there was absolutely no sign or symptom of cerebral disturbance.

Mr. PITTS's experiments, carried out in conjunction with Professor REID, show that ligature of the common carotid for bleeding from the internal carotid would fail to arrest hæmorrhage therefrom, owing to free anastomoses between (1) the internal carotids through the circle of WILLIS, and (2) the external carotid of the same side with the branches of the external carotid of the opposite side.

The only treatment, therefore, for presumptive bleeding from the internal carotid would be simultaneous ligature of the external and common carotids on the side from which bleeding came.

If the hæmorrhage were only slight in amount, and the patient's condition therefore good, the best practice would be to ligate the external carotid at once as near its origin as possible (so as to make certain of including the ascending pharyngeal branch), and at the same time throw a provisional ligature round the common trunk close to its bifurcation, to be tied on the slightest sign of recurrence of bleeding. It must be remembered that Mr. PITTS's experiments were carried out on the cadaver, and his conclusions cannot be logically applied to what would occur in the living body.

It is quite reasonable to assume that a small opening in the internal carotid vessel in a young subject with no hæmophilic tendency and otherwise healthy blood-vessels might become firmly plugged if tension were relieved within the vessel for only a few hours, the original septic cause having by the time of operation subsided.

I do not believe that ligature of the common trunk alone would suffice to stop bleeding from any branches of the external carotid artery, owing to the very free anastomosis between the vessels of the two sides.

Cases are on record of successful arrest of bleeding from a tonsil by ligature of the common trunk, but no proof is forthcoming of the exact source of the hæmorrhage. Neither in our case was the source definitely proved, but at the time of tying the common carotid I examined the pharynx and found a distinct cavity admitting the tip of the little finger at the hinder border of the left tonsil. Whatever its source, the treatment adopted was successful in permanently arresting the hæmorrhage, and no cerebral symptoms have developed.

In a similar case I should ligature the external carotid, and place a temporary loop round the common trunk also, to be tied if needs be.

CASE OF LEFT INGUINAL "COLOSTOMY": SUCCESSFUL OPERATION.

UNDER CARE OF LIEUT.-COL. F. F. PERRY, I. M. S.,
*Principal and Professor of Surgery and Ophthalmic
Surgery, Medical College, Lahore, Punjab.*

Reported by TRIMBAK BALVANT BHANAGAT, 4th-year
Student, Assistant Surgeon Class, Medical College,
Lahore.

R. KHAN, a Mahomedan compositor, *ætat* 30, was admitted into the Mayo Hospital on the 12th April 1901 for perineal fistula.

Previous history.—Patient used to suffer from chronic constipation, and had great difficulty in defæcation, and used to pass pus and blood mixed with faecal matter small in amount. Some ten years back he was treated for the complaint in this hospital, and a rectal bougie was given on ascertaining a slight rectal stricture. He had, six years ago, a perineal abscess, and while in Assam

was operated on for the same. The abscess healed, with a fistula discharging pus as the result; a year after a companion fistula formed, and thus the perineum was riddled through since then.

STATE ON ADMISSION.

General health.—Fair; enlargement of cervical glands both sides.

Local.—The perineum was studded with fistulous openings (about five in number), discharging pus. The mouths of the fistulae were surrounded with wart-like growths. The fistulae seemed apparently to have had no communication with the rectum. There was no stricture of urethra, and no urine used to pass through the fistulae.

On examining per rectum, a stricture was found to be present within one inch of the anus, admitting the index finger with difficulty, so that the condition of the bowels beyond could not be ascertained. The surface of the stricture was nodulated, ulcerated, and the rectal wall much thickened. Of the five fistulae, three were on the right and two on the left side of the anus. On probing, one of the left seemed to have a passage towards the rectal wall, but its internal opening could not be felt. The stricture was of a malignant growth, and as the bougie given to the patient did him no good, the present helpless situation and the decision of performing colostomy were explained to the patient. On gaining his consent, the operation was performed on the 19th May 1901.

Operation.—The left inguinal region prepared by thoroughly washing with soap, water and spirit lotion, the patient was put on the operation table and chloroformed. An incision was made two inches in length, situated almost midway between the anterior superior iliac spine and the umbilicus. The abdominal parietes divided, and the incision carefully deepened, the peritoneum was reached and cut over a director. Index and middle fingers were then introduced into the peritoneal cavity, and the sigmoid flexure sought for and was found without much difficulty, recognised by the presence of appendices epiploicae and the longitudinal bands of muscle fibres. It was then pulled from above downwards until the mesentery was too tight to allow a further prolapse. The skin and the parietal peritoneum having been united by four silk sutures—two on either side of the gut—a glass rod, about eight inches in length, was then passed through the mesentery beneath the bowel, according to PAUL'S method. The upper and lower angles of the wound were then closed with two silkworm gut sutures. The top of the bowel was then found to be in a firm grip and in opposition with the edges of the wound, so it was then unnecessary to apply any more sutures. The peeping-out (projecting) part of the gut was then dusted with iodoform and a piece of gutta serena silk tissue placed over it and antiseptic celluloid dressings applied. Two guiding sutures were inserted into the bowels.

AFTER THE OPERATION.

18th April.—(a) Opium, gr. i, in pill night and morning. (b) Ice to be sucked if tendency to vomit.

20th April.—Patient remained wakeful, and had four vomitings during the night.

21st April.—Patient suffering from distension of the stomach: the following mixture was ordered:—

Tinct. cardamomi co.	...	...	℥xx.
Spt. ammon. aromat.	...	...	℥v.
Tinct. zingiberis.	...	...	℥xxx.
Aqua menth. pip.	...	ad.	℥i.

One dose at once, further if necessary.

The mixture did not relieve the patient's troubles, and as the subsequent distress seemed to aggravate, it was immediately decided to complete the operation sooner than usual. The dressings opened and cocaine applied over the exposed gut: it was opened with a knife sufficient to allow the finger to pass into the bowel: as soon as the opening was made, the accumulated flatus escaped, which gave an immediate relief to the patient. A large-sized drainage tube was then introduced into the colon with a safety-pin attached to the other end, so that it may not slip into the bowel, and the ordinary antiseptic dressings reapplied.

22nd April.—Patient passed a large amount of pus, slightly mixed with blood, of faecal odour, per rectum. This was obviously from the pre-existing fistulae. Had sound sleep: dressings were soaked: no offensive odour.

23rd April.—Patient feels better. Sweet-smelling discharge: area around the exposed gut thoroughly washed with warm boracic lotion, and dressed with carbolic tow. Tube in working order.

26th April.—Under cocaine, the anterior portion of the bowel was snipped with a pair of scissors, as it was found that the original opening was giving trouble on account of its small size.

29th April.—Stitches and glass had remained.

For the first few days after the main operation the patient was kept on milk diet, and later on milk and soup. He passed solid faecal matter through the enlarged opening without any difficulty, and seemed to gain in health gradually, and was allowed to get up from his bed and to walk a few steps in the adjoining veranda shortly before the discharge.

Since the operation, the temperature remained fairly normal, and the patient made an excellent recovery without a complication, till on the 8th May he was discharged cured with an "artificial anus."

CASE OF HYDATIDIFORM MOLE AND CYSTIC OVARIES.*

BY L. WATSON HARVEY, L.R.O.P. & L.R.C.S., EDIN.,
L.F.P.S., GLAS.

Manly, N. S. W.

Mrs. O'C., *ætat* 27, first seen September 28th, complaining of nausea and vomiting for four weeks; discharge of blood per vaginam, and pains for 24 hours.

History.—Always healthy; had fall from horse in girlhood, producing great pain in side, which passed off in three days without ill-effects. Menstruation always regular and unaccompanied by pain. Married June 14th; menstruation ceased on July 26th.

* Reproduced from the *Australian Medical Gazette* by request.

Condition.—No sign of alimentary lesion per vaginam; rectum very full; uterus enlarged, painless, retroflexed, and freely moveable; cervix normal; ovaries and tubes normal. Diagnosis threatened abortion due to retroflexed uterus. Ordered rest, sedative mixture, saline aperient, and hot douche.

October 2nd.—Hæmorrhage and pain ceased, but vomiting still continuing, so she was removed to Nurse Graham's Private Hospital, where, under bromides, she improved very much, and returned home.

I saw her again on the 18th, as vomiting returned and was very severe. She was again given bromides and removed to private hospital: this time she failed to improve, vomiting continued steadily and was slowly exhausting her: signs of muscular degeneration were evident, pulse increasing up to 160. She had now to be fed per rectum, and given stimulants freely. Practically everything was despairingly tried for this condition, small doses of morphia and atropine only giving relief. In the interval she was in a state of empty straining, expectorating large quantities of frothy saliva, taking an occasional sip of lemon water, as the bringing up of something was a relief.

October 30th.—The uterine tumour, which was palpable for some weeks, was now very evident, extending to one inch below umbilicus, and would indicate a four instead of a three months' pregnancy; but as her condition was one of exhaustion, and her life in real danger, Dr. THRING was asked to see her with a view to inducing labour. Dr. THRING deemed her four months pregnant, and suggested that quickening being a physiological epoch in intra-uterine life, events might change with the advent of such, but if such did not occur quickly, to empty the uterus. Next day she thought she felt movement, and seemed somewhat better. The next 24 hours bringing no further change, a sterilised No. 8 bougie was introduced into uterus, and vagina packed with iodoform gauze. Next morning there was no effect, so three bougies were reintroduced and left for four hours without effect. A long strip of gauze soaked in glycerine was next introduced, and in four hours slight pains and hæmorrhage had occurred. A full set of twelve bougies were now introduced and patient left for the night. Saw case at 6 A.M., there was no further uterine action. I determined to empty uterus under anæsthetic. Chloroform was given at 9 A.M., and an ovum forceps introduced to grasp fœtus; instead, it brought away a large mass of degenerated placenta. The uterus was quickly emptied by finger and blunt curette, but owing to the enormous mass to be brought away piecemeal, it took some little time. The empty uterus was packed with gauze, and the patient returned to bed very collapsed. Saline infusion was given and combined with $\frac{1}{2}$ gr. strychnine; she quickly rallied.

Vomiting continued throughout the day, but patient expressed extreme relief. Convalescence was interrupted by slight æpuls; temperature up to 102° in evenings. Under antiseptic treatment it subsided, though the patient complained of pain and tenderness on right side.

She rapidly regained health, and left hospital on November 30th.

The case was so far interesting, the condition never being even suspected; there was never any discharge of cysts nor constant bleeding. The only point being the disproportion between the presumed duration of pregnancy and the size of the uterus.

I have since noted that Mr. ALBAN DONAN, commenting on molar pregnancy at the Obstetrical Society of London, calls attention to the frequency of uncontrollable vomiting as a leading feature in this disease, and quotes cases reported by Continental authors, in which it was the only symptom. He gives the mortality of 35 consecutive cases at 28 per cent.

December 17th.—I was again asked to see the patient, the pain in her side having returned. Her temperature was now 103°. On examining, there was a distinct mass in right pelvis, tense, painful, and placed forward against the abdominal wall. There was also a discharge of blood.

December 18th.—Patient's condition becoming very serious, temperature up to 105° necessitating constant ice-packs. Per vaginam swelling has increased, and gives the impression of pointing into vagina. With the history it seemed a clear case of pus, and I was considering puncturing and draining through vagina!

On seeing case a few hours hence, swelling had moved and patient felt easier. Dr. THRING was asked to see her, and agreed that swelling was probably pus, and ought to be attacked through abdominal wall.

The patient was removed to private hospital, and on December 20th Dr. THRING cut down on outer edge of right rectus and found an ovarian cyst with a complete turn of its pedicle, which was very cedematous with signs of peritonitis all round. On this being removed, the other ovary was found to be cystic and also removed. The patient stood operation well, and made a satisfactory recovery, though somewhat delayed by a small abscess at lower end of wound.

I might state that on first seeing the case the ovaries were palpated and presumed healthy, so it is reasonable to suppose the cysts, if present, were very small. I think the association of ovarian cysts and molar pregnancy in the same patient of pathological interest, and the notes of clinical interest from the difficulty of diagnosis.

I would ask some reader, was the development of both synonymous? Have they any pathological relation to one another? Is anything definitely known regarding the growth of ovarian cysts?

A SINGULAR CASE OF DEATH BY ACCIDENTAL CUT-THROAT.

By DADABHOY P. PESTONJEE, G.H.M.S.,

Medical Officer, Karimnagar Dispensary, Hyderabad,
Deccan.

The body of a Kalai (toddy-man) was found one morning on the outskirts of a village called Manarkoondoor in Karimnagar Taluka, Hyderabad, Deccan, on the top of a palmyra tree, 75 feet in height.



It was in the usual dress of a toddy-man worn while tapping the tree, viz., a tight dhoti round the waist, having a broad leather-band over it, containing the necessary implements to tap the tree. A kawad, i.e., a horizontal piece of wood to carry the toddy-pots at each end, a few polass leaves blood-stained, and a sharp instrument like a scythe were found lying on the ground.

The body was found suspended in a semi-extended position, resting on a piece of rope called mukoo in Telugu, about the centre of the back; the feet were resting on the trunk of the tree, wearing an anklet called "gajee," the heels being at an obtuse angle.



The accident is supposed to have happened by the slipping of the hand while tapping the tree. On post-mortem examination held at Karimnagar Hospital, the body was found in a knee-and-elbow position; the wound in the throat was 2" in depth, 3" in width and extending 2" from right to left, severing the upper portion of the windpipe (the thyroid cartilage) as well as the branches of the carotid arteries; and on dissection all the internal viscera were found healthy, but anæmic from loss of blood.

When the position of the body with respect to surrounding objects has been disturbed, and the body transported to a distance, it is not always possible for us to decide the question peremptorily, from a mere inspection of the body, that the wound was received accidentally, or was inflicted by a suicide or a murderer; but in this case the evidence of those who found the body in the said position, i.e., of the village "punch" jury and the police, was sufficient to prove that the wound was of an accidental origin.

Indian Medical Record.

5th June 1901.

DANGERS OF SPECIALISM IN MEDICINE.

IN his address, as President, before the American Academy of Medicine, Denver, Dr. L. DUNCAN BUCKLEY, A.M., M.D., Physician to the New York Skin and Cancer Hospital, Consulting Physician to the New York Hospital, &c., gave expression to some pointed remarks on the Dangers of Specialism in Medicine. We extract the essentials from a detailed report in the columns of the *Philadelphia Medical Journal*. The present status of the special consultant could be defined in a few propositions which the speaker thought could be accepted without controversy. (1) The science and art of medicine had, with other sciences, become so vast and extended that no one mind was capable of fully grasping and perfectly understanding every portion of it, and practising in every line in the best manner possible. Every medical man was unconsciously more or less a specialist, or more qualified in certain lines of knowledge and experience than in others. (2) Specialism was, therefore, a natural healthy outgrowth from general medicine, as one and another person engaged in the study and practice of medicine had emphasised and developed one portion or another of the vast field in which all had laboured. (3) Specialism had indeed greatly helped in the advancement of the science and practice of medicine by the concentration of thought and experience in special directions, and by collecting and utilising large numbers of cases for the instruction of those engaged in medical study and practice. (4) The several branches of specialities were each so great and extensive that the study and practice of one branch were sufficient to fully occupy the time and thought of any one individual, it being difficult even to follow completely all the advances pertaining to any one particular line or department of medicine. (5) In order to properly follow and develop one of the specialities in medicine, the medical man should be particularly well educated, theoretically and practically, in all the departments of medicine, and should have experience in general medical practice before taking up any special branch. The specialist should be a good physician, plus the particular knowledge of his speciality. (6) The tendency to specialism in medicine could not be arrested: first, because the vastness of medical science demanded it; and second, because the public required and would pay for the highest attainable knowledge, experience and success in this as in all other matters relating to human comfort and welfare. There were, however, dangers growing from these very relations of medical specialism which, unless checked, tended to a lower, rather than a higher, standard of education and practice in special lines. First as regards the education of a specialist or special consultant. The laws of the land compelled a certain standard of general medical education, else probably medical knowledge among practising specialities would be lower than it really was. But was the education in this connection sufficient? The course

COMMENTS AND NEWS.

CHRONIC BILIOUSNESS.

THE *Medical Brief*, in quoting from the *Medical Herald*, says, in effect, with reference to chronic biliousness: In the attention given many cases, the treatment is often to relieve the symptoms, instead of striking at the root of the trouble, and often grave mistakes result by this method of practice, and it is especially so in the trouble called "chronic biliousness." Sometimes this condition is only a symptom of something more serious, and again it is the true disease, and so careful differential diagnosis must be made in all of these cases. Biliousness properly is not a symptom, but is the result of wrong diet or a sedentary life, or the continuous use of certain drugs. The diet in these cases should be fruits and vegetables. Patient should take much out-door exercise. This will assist in eliminating the stored-up secretions in the liver, which is not excreted into the intestine, but reabsorbed, circulating in the blood an injurious material. Most of those who are sufferers from this trouble are great meat eaters, and seldom resort to vegetables as an article of diet, and the first step is to correct the diet. Articles which leave a residue in the intestinal tract, as corn bread, hominy, beans, celery, and the like, will often go a great way in giving relief; but very few cases are entirely cured by this method, and radical medicinal treatment must be instituted. Every physician is told that calomel acts on the liver, and will therefore accomplish the required result; but this drug is often found wanting. In very few of these cases is it well to use calomel, as it must be administered too long at a time, and derangement of digestion and pyalism sets in before biliousness is relieved. Purges are frequently used, and some of them for a time stimulate the liver, but only as long as taken in large doses, and when discontinued the trouble returns. Often the result of drastic purges is a chronic constipation, and piles and similar rectal troubles, and this is especially so after the use of compound cathartic pills. The correct treatment is, first, abundance of exercise and of such a nature as to massage the liver, as bending at the waist or twisting the waist and eating the proper articles of food, and the medicinal treatment a remedy to stimulate the liver and cause the bile to be discharged into the intestinal canal. It is not necessary to give a purge with the treatment, for it is an established fact that bile is a cathartic, or at least does strengthen or increase the peristaltic action, causing a purgative or laxative action on the bowels. The drug which has this action is chlonia, which, while its action is mild, causes regular and persistent stimulation of the liver, which hastens the discharge of bile into the alimentary canal, thereby affording relief. Chlonia should be administered in from half to teaspoonful doses after meals, and if the trouble is of long standing, an extra half teaspoonful dose can be taken just before retiring. This, with the other changes recommended, will be found all sufficient to produce very pleasant results, and the patient is not nauseated, or the digestion disturbed, by large amounts of disagreeable remedies. Excessive eating of saccharine has the effect of producing biliousness in aggravated forms, and should be very sparingly indulged in, for, as a rule, the economy will manufacture its own sugar from the foods taken.

PHYSICIAN NOT OBLIGED TO ANSWER CALL.

THE *Journal of the American Medical Association* says:—Some time ago we noticed the starting of a suit against a

physician of Indiana for damages for refusing to respond to a call for his services. The plaintiff's complaint was based on the theory that under the State laws of Indiana the defendant, having been duly licensed, was obliged to meet demands for his services when it was in his power to do so. The defendant physician, through his counsel, demurred to each paragraph of the complaint, holding that the facts did not constitute a cause for action against him. The demurrer was sustained in the circuit court and an appeal taken by the plaintiff to the supreme court, which has just rendered its decision that the Medical Practice Act is a preventive, not a compulsive measure. This decision will be found in our medico-legal department this week. In obtaining a State license to practice medicine, it says it is not required, and the license does not engage, that the recipient will practise at all, or that he will practise on any other terms than he may choose to accept. In other words, the physician is his own master, and not a public slave, at the beck and call of whoever may demand his professional care.

Without discussing the merits or demerits of the special case involved, the principle established by the decision is the only rational one, and it is well that it has been authoritatively settled in the community where such a suit could be seriously maintained. It is strange that the belief can anywhere be held that a professional man, who draws no compensation from the State or community, should be considered a public or quasi-public servant, simply because the law demands of him certain qualifications before permitting him to earn his living in his chosen way. That would be adding to the burdens of the already overburdened practitioner with a vengeance. The fact is, the public has often very little sense of justice as regards the medical profession, notwithstanding its dependence upon it in times of trouble. Good evidence of this is given in the newspaper comments on the present case, some of which are magnificent examples of Pharisaic virtue, feeling acutely for others' sins and utterly unconscious of their own.

We would not be understood in the least as ignoring the moral obligations of the physician to attend cases in need—no physician worthy of the name would be wilfully guilty of violating them, and it is safe to say that there is no class in the community that lives up to them more. In the present instance we are informed that some of the *ex-parte* statements sent out, on which some of the criticisms were based, were falsehoods, and this materially alters certain aspects of the case. However this may be, there is no right nor justice in falsely assuming a legal obligation that may be made to embarrass the physicians where no moral obligations exist. The decision, while it is the only rational one, may serve as a useful precedent and as a preventive of future similar misconceptions of law and justice.

SANITARY MATTERS IN BOMBAY.

IN the course of his first quarterly health report, Dr. J. A. TURNER, the Executive Health Officer for Bombay, makes the following remarks:—

During the two months I have been in office, I have made myself acquainted with the working of the Health Department, and have inspected the city with the Divisional Health Officers and have submitted a letter to the Municipal Commissioner, giving an outline of what I considered the weak spots in the sanitary administration of the city.

To summarise shortly, the principal points to which I have directed my attention, and which I shall bring before your notice, are:—

(1) The amendment of the Public Health Act of 1888. I have considered and submitted my opinion on those sections of the Act affecting the public health. (2) Provision of bye-laws. I have been in conference with the Commissioner on these and made certain suggestions. (3) Registration of births and deaths. (4) Infant mortality. (5) Notification of infectious diseases. (6) Provision of free medical relief. (7) Registration of dairies, cow-sheds and milk-shops, and inspection of the milk-supply. (8) Improvement or method of water-supply. (9) Surface and subsoil drainage. (10) Relaying of storm-water drains and disconnecting house drainage therefrom. (11) Drainage of districts at present undrained and house-drainage connections. (12) Overcrowding of rooms, houses, and factories. (13) Ventilation of houses, streets, drains and sewers. (14) Improvement in the present system of night-soil disposal and scavenging. (15) Control of all infectious diseases and hospitals for infectious diseases. (16) Municipal police to assist Health Department. (17) Provision of camps on open spaces for people ejected from overcrowded houses. (18) Provision of houses for employes of Municipality and houses for working classes. (19) Consideration of the method of disposal of the dead. Provision of open spaces for recreation. (20) Reorganisation of the Health Department. This may appear an ambitious programme, but many of the subjects have been before you already, but have not been decided upon, and feeling that the Corporation have at heart the improvement of the health of the city, I will not hesitate to continue to urge these important matters until they are brought to a successful issue.

IMPORTANCE OF THE IDEAL.

THE *Medical Brief* says:—The decay of Spain, the degeneracy of France, and the absence of progress in many nations of the old world, arouses a natural interest in the minds of patriotic Americans as to the causes. A knowledge of these will be of use to us, for it is easier to ward off disease from the body politic than to cure established evils.

Decay begins in one little spot and spreads. National decay, like national progress, begins with the individual, extends from class to class, until the foundations of society are corrupt.

The *absence of ideals* is the primary cause of degeneracy, individual and national. Wherever the ideal exists in the minds and hearts of men, we find faith and works, courage and convictions; a never-satisfied striving after what is highest and best in achievement and character.

The idealisation of work, however humble in its nature, glorifies it and fills it with perpetual interest. The idealist loves his work and makes it vital. It quickens and takes on human characteristics. It responds to the growth of the worker's being, and in turn influences and develops that worker.

The man of ideals finds a practical object at hand through which to utilise his energies and work out his visions of the infinite.

It was love of the ideal that moved MICHAEL ANGELO to carve his beautiful dreams out of the shapeless marble—a revelation of, and inspiration to, men's genius forevermore.

The practical idealist is a sane, healthy, happy man. There is no revolt, no dissension, no discord in his nature. He does not take alcohol or morphine to befooled and stupefy his powers. He does not wander aimlessly through life, prating about the emptiness of things, the poverty of human nature, nor is he fond of displaying the ignorance of scepticism, the

indolence of pessimism, or the mental alienation which hatred, envy and similar passions betray.

If the idealist is a rich man, his wealth does not own him. His pride is invested in the *qualities* which earned it and serve to hold it together. There is no menace to anyone in wealth garnered and humanised by the idealist.

If men can be taught to lift their work above the plane of automatic, grudging drudgery, to regard toil as an instrument for forming character, organising and developing the body, a benefit to self, a service to humanity, part and parcel of a universal world movement, the rebellion against this fundamental necessity of life will be hushed in obedience to the teachings of natural law. Harmony will take the place of friction and strife. It is the hatred of work which makes it hard. When willing, intelligent co-operation with Nature's laws of life takes the place of ignorant revolt against natural conditions, the primal curse will be blotted out.

The truth will make us free, but we must follow the ideal faithfully, practically, to reach it. We must not be discouraged because it forever recedes from our eager eyes and escapes the utmost efforts of our hands. That is the nature of ideals. Our feet are stumbling upwards, our hands are stronger and more capable, our minds more richly furnished, our eyes, ears and other senses are being refined.

A nation of practical idealists is safe from degeneracy. Neither the physical agencies of alcohol and morphine, nor the teachings of fanatics, can undermine a society where idealism is firmly established. It is the basis of our Constitution and of Anglo-Saxon civilisation generally. Our forefathers sacrificed their all to the ideal in government and left it—a sacred trust—to posterity to perfect and uphold. Let us not forget their struggles and sorrows, but preserve the fruit of their heroic efforts from the social and political taint brought to our shores from Continental Europe.

FELLOWS OF THE ROYAL SOCIETY OF LONDON.

THE following gentlemen from India have been nominated by the Council for admission into the Royal Society of London:—

ALFRED WILLIAM ALCOCK, Major, I.M.S., Superintendent of the Indian Museum; Professor of Zoology in the Medical College, Calcutta.

RONALD ROSE, Major, I.M.S. (retired), M.B.C.S., Eng., D.P.H. Lond., Lecturer in Tropical Medicine, Liverpool School of Tropical Medicine. His work on malaria is well known to our readers. He commenced the experimental examination of MANSON'S mosquito-malaria theory in 1894, and his determination of the evolution of crescents in the stomach cavity of gnats was published by Dr. MANSON in the *British Medical Journal* in March 1896. The animate nature of the flagellate bodies was established in a paper published in the *British Medical Journal* in January 1897, and he announced that he had succeeded in cultivating malaria parasites in gnats in the *British Medical Journal* of December 1897 and February 1898. Since his appointment to the Liverpool School of Tropical Medicine, he has continued his malaria investigations in Sierra Leone.

WILLIAM SCHLICH, Ph.D., C.I.E., Principal Professor of Forestry in the Royal Indian Engineering College, Cooper's Hill. Dr. SCHLICH, between 1871 and 1880, was Conservator of Forests in Sind, Bengal, and the Punjab successively; and in 1881 he was appointed Inspector-General of Forests to the Government of India. From 1885 to 1889 he was employed specially in England in organising the first English Forest School; and in 1889 he was appointed to his present office.

MENTAL ELEMENT IN THE CAUSATION AND CURE OF DISEASE.

The Charlotte Medical Journal says :—The mind plays an important part in the etiology of many diseases, and a full recognition of this fact has been of inestimable value in the treatment of diseases of mental origin.

One physician often meets with better success in the treatment of his cases than another, from the fact that his presence, manner and words of hope inspire the patient with a state of mind calculated to assist the medicines in tiding over some crisis.

* The prevalence of Christian science to-day, and other fads of a similar character, with the large number of reported cures, some of which are undoubtedly true, only illustrate the mind's influence in the treatment of many diseased conditions. It further shows that the physician should not avail himself of this element as an adjuvant to his other treatment in all cases.

The educated physician knows when to use and how much to rely upon this psychic element, but the ordinary lay individual, without medical education, soon learns to look upon mental therapy as a panacea, and advocates its use for diphtheria, malaria, and even the removal of cancerous growths.

A pill composed of the necessary medicinal agents, coated with hope and taken with confidence, will produce the best results with the patient. The physician, therefore, should endeavour to cultivate the habit of using this valuable element in his daily practice, and after a time it will become a part of him, and his success will be increased in many instances.

AN EVERLASTING MEMORIAL.

Up and away like the dew of the morning,
That soars from the earth to its home in the sun,
So let me steal away, gently and lovingly,
Only remembered by what I have done.

Up and away, like the odours of sunset,
That sweeten the twilight as evening comes on ;
So be my life,—a thing felt, but not noticed.
And I but remembered by what I have done.

Yes, like the fragrance that wanders in freshness,
When the flowers that it came from are closed up and gone;
So would I be to this world's weary dwellers,
Only remembered by what I have done.

Not myself, but the truth that in life I have spoken,
Not myself, but the truth that in life I have sown,
Shall pass on to ages,—all about me forgotten,
Save the truth I have spoken, the things I have done.

—HORATIUS BONAR.

PREVENTION OF SICKNESS AFTER ANÆSTHETICS.

The Medical Brief says :—BLUMFELD, in the *London Lancet*, says that some of the chief points to be attended to in the avoidance of after-sickness are : (1) Use as little of the anæsthetic as possible consistent with perfect anæsthesia ; (2) wash out the stomach at the close of the operation when much mucus has been swallowed ; (3) in long operations substitute chloroform for ether after three-quarters of an hour ; (4) move the patient about as little as possible during and after operation ; (5) place him on his right side in bed with the head only slightly raised ; (6) give nothing but hot,

thin liquids in small quantity for at least eight hours after ; and (7) do not alter the temperature of the room for some hours. With proper attention to these points one-third of the patients operated on will be free from after-sickness, and for short operations the proportion will be much higher still. In fact, after all administrations up to twenty minutes, or not much longer, sickness will be found to be the exception.

QUACKS, BOGUS DIPLOMAS AND MEDICAL REGISTRATION IN INDIA.

The Lancet of 18th May says :—The Government have published certain extracts from American papers recording the conviction of the two ARMSTRONGS who conducted a "diploma mill" and sent many of their "diplomas" to India. Several native practitioners were deluded by these rogues, who are said to have been turning out graduates at the rate of 1,000 a year. First they styled themselves the Illinois Health University. When this was stopped, the Independent Medical College was started ; and when this was annulled, the Metropolitan Medical College came into existence. It is highly satisfactory to hear that imprisonment for one year has been imposed on JAMES ARMSTRONG, the so-called President, and that though the sentences have been deferred on his coadjutors, they are also likely to be punished. This is a good example of the necessity for some form of registration in India. At present any quack is free to assume any titles he chooses and to delude the public as to the possession of medical knowledge. The recognised graduates of colleges in India should be separately registered, and it might be possible also officially to acknowledge the native hakims and vaidas who practise with native drugs and methods of treatment.

LIME-JUICE AND MALARIA.

LIEUTENANT C. C. MURISON, I.M.S., writes of cures of malaria he had effected by the use of lime-juice. He says : I am of opinion that the taking of a little lime-juice every day is a very good prophylactic against ague. I have not any statistics to give to back me up in this last statement, but can say that ever since trying this treatment I have taken lime-juice every morning for breakfast, and have been free of fever. I have had fever once, and that was about ten days before commencing the lime-juice. Another officer of the regiment states that he has taken lime-juice for breakfast for the last one and-a-half years, and that during this period he has not suffered from ague. Previous to this he had suffered from fever on two or three occasions. The other officers who have not taken lime-juice regularly have had occasional attacks of fever.

AN ASSISTANT SURGEON'S SUICIDE.

FROM further enquiries, it has been ascertained that the name of the Parsi who committed suicide in a boat on the river by blowing his brains out with a revolver is SORABJEE NUSSEHWANJEE, a retired first class Assistant Surgeon in the Subordinate Indian Medical Service. The deceased recently retired on pension, and came to Calcutta from the Central Provinces in August last, and had ever since shown signs of insanity. He resided at first with Messrs. Framjee and Son's of Bentinck Street, and eventually went and put up at the Parsi Hotel in Harinbaroo Lane. On Thursday evening he paid up his hotel bill in full for a month and eight days, having previously despatched his trunks and other property to the address of his wife at Belgaum, in the Bombay district, where she is residing with six children. The next morning he left the hotel, and nothing further was heard of him till his body was identified at the morgue on Friday evening. The Coroner will hold an inquest, which has been fixed for the 10th instant.

FAILURE OF DISINFECTION FOR PLAGUE IN CALCUTTA.

THE *Lancet* says:—"For three weeks in March over 11,000 deaths from plague were recorded in India, more than half of which occurred in Bengal; but the returns for the second week in April show a decline for India to 8,429, the decrease being largely due to the much lower figures for Behar. At the end of March the weekly plague mortality in Calcutta rose to over 1,100, but two weeks later it had sunk to just one-half, so that the present season's outbreak is nearing its end, and an opinion can be formed on the results of the extraordinary efforts made during the intermission last year to thoroughly disinfect all the slums of Calcutta, particular attention being paid to areas in which plague had occurred. In spite of these measures, the present recrudescence has been higher than any previous one by about half as much again, while cases have repeatedly recurred in houses which have been disinfected over and over again, so that little or no good appears to have resulted from the great expenditure of disinfectants and trouble, and Professor FRASER's opinion that effective disinfection in native houses is an impossibility is borne out. It is to be hoped that more attention will now be turned to the destruction of rats. Plague is also decreasing in other parts of India, while a decreased mortality-rate in Calcutta affords some grounds for hoping that the next outbreak will be less severe.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

At a meeting of the President, Vice-President, and Council, held on Tuesday, May 7th, the following Examiners were elected:—Anatomy: A. Birmingham and A. Fraser; Surgery: H. Gray Croly and R. F. Tobin; Biology: J. J. Burgess; Ophthalmology: A. H. Benson and R. D. Joyce; Pathology and Bacteriology: A. H. White; Pathology: G. B. White; Midwifery and Gynaecology: F. W. Maxwell; Sanitary Law and Vital Statistics: H. B. Goulding; Engineering and Architecture: J. C. Wilmot; Dental Surgery and Pathology: D. Corbett and W. Story; Mechanical Dentistry: G. M. P. Murray and W. Booth Pearsall; Chemistry and Physics: E. Lapper and R. J. Montgomery; Languages: L. J. Woodroffe; Mathematics, Physics, Dictation, and English Essay: J. W. Trestram.

THE KING AND THE BRITISH MEDICAL ASSOCIATION.

THE President-elect of the Association has received a communication from General Sir DIGHTON PROBYN, Keeper of the Privy Purse, stating that the King has graciously acceded to the request to become Patron of the British Medical Association. It will be remembered that His Majesty, then Prince of Wales, was elected an honorary member of the Association at the annual meeting of the Association last year at Ipswich. On his accession, His Majesty ceased to be a member of the British Medical Association, as of other voluntary associations to which he belonged; and it will be highly gratifying to the members of the Association to learn that His Majesty has not ceased to take an interest in the work of the Association, but has graciously consented to become its Patron.

SEWING MACHINE FOR THE SKIN.

A SEWING machine for the skin is a recent French notion. It was exhibited by Dr. PAUL MICHEL at the late Congress of Medicine, and is of course intended for the use of surgeons. The instrument is quite small, easily held in the hands, and

has received the Barbier prize of the Faculté de Médecine. In future, a surgeon need not slowly stitch the edges of a wound. With the left hand he keeps the two lips together, and with the right he fastens it by means of little clasps or "agrafes" of nickel having points which only penetrate the epidermis, and are not painful. These catches are applied by the machine, a species of pincer armed with them, which can be disinfected by heating it red-hot.

ARSENIC IN DIABETES.

DR. W. A. HATTON (Westthoughton) writes to draw attention to the views of Dr. W. MURRAY in *Rough Notes on Treatment on the Value of Arsenic in Diabetes*. Dr. HATTON adds that in a run of six cases of diabetes mellitus within twelve months, in which he used pancreati: tabloids, three daily (B. W. and Co.), and a mixture of tr. camph. co. with ammonium citrate, the sugar entirely disappeared, and the cases are to his knowledge still free and in good health. Since reading Dr. MURRAY's article he has tried arsenic in two cases for some months without any appreciable benefit, but both were cases of many years' standing.

SAD DEATH OF A SENIOR SURGEON.

LIEUTENANT-COLONEL GEORGE WALKER, senior Surgeon, General Hospital, and Principal of the Medical College, who had been for three days in the General Hospital suffering from septic poisoning, contracted while performing an operation a short time back at Royapetta Hospital, died on the 31st May, at 3 P.M., of septicaemia. The deceased who had been some years in Madras was very popular, and was a prominent Mason. His terribly painful death at the early age of 52 has caused a great shock, though little hope of his recovery had been entertained for the last two days.

LONDON SCHOOL OF TROPICAL MEDICINE.

WE are informed that twenty-two students have entered the London School of Tropical Medicine for the May session. Among them we note the names of two ladies. A considerable number of the student's come from tropical regions—the Congo State, Bermuda, Assam, Lagos, Sierra Leone, and China. There are others from Bern in Switzerland, Christiania and Finmarken in Norway, and Chicago and Michigan in the United States.

SHORT ITEMS AND PERSONALITIES.

The annual dinner of the Indian Medical Service will be held at Princes' Restaurant, Piccadilly, on Thursday, June 13th, at 7.45 P.M., when the Chair will be taken by Surgeon-General R. Harvey, C.B., D.S.O., the Director-General. Officers of the service who intend to be present at the dinner are requested to communicate as early as possible with the Honorary Secretary, Mr. P. J. Freyer, F.R.C.S., 46, Harley Street, London, W.

Major H. E. Deane, B. A. M. O. who would, in the ordinary course, have reverted to military employ, is to be retained for the present on plague duty in Calcutta, the Government of India having made an exception in his case in view of the special qualification he has displayed in the work, and the grave issues depending on the efficient and successful administration of plague measures in this city.

Dr. Zahiruddin Ahmed, Civil Medical Officer, Bogra, Fellow of the Calcutta University, and a Municipal Commissioner of Calcutta, died on the 23rd May at his residence, No. 28, Harrison Road. He contracted malaria at Bogra, and came to Calcutta for treatment, where he died.

India should furnish a splendid field for the study of the effect of diet on the prevalence of diabetes, especially as the disease is common in Bengal. Unfortunately the literature on the subject is very scanty, while the views of different writers are somewhat divergent, mainly on account of cases, of true diabetes and temporary glycosuria not being kept distinct.

A proposal has been brought before the Government of India to increase the number of officers of the Indian Medical Service, and, pending the consideration of this, the question on the division of the furlough of the Indian Medical Service between the Civil and Military Departments has been deferred.

A Russian medical man has decided that the electric light is least injurious to the eyes. He says that the oftener the lids are closed, the greater the fatigue and consequent injury. By experiments he finds that the lids would close with different illuminations per minute: candle light, 6.8; gas, 2.8; sun, 2.2; electric light, 1.8.

An exchange says: "Last week a delinquent subscriber said he'd pay if he lived. He died. Another said, I'll see you to-morrow. He's blind. Still another said, I'll pay you this week or go to the Devil. He went. There are hundreds who should take warning from these procrastinators and pay up now."

Mr. Parakh, Veterinary Officer in charge of the Nizam's Stud Farm at Sangareddi, and son of Lieutenant-Colonel Parakh, I. M. S. (retired), was brutally murdered while lying asleep in his bungalow on 28th May. It is alleged that he was stabbed in the abdomen by an Arab through jealousy over a woman.

We understand that the proposal to divide the furlough reserve of the Indian Medical Service between the Military and Civil Departments will not be taken up till after a decision has been arrived at on the question of increasing the strength of that service, now before the Government of India.

Sir William MacJormac has, on the motion of Dr. W. W. Keen, been elected a foreign Associate Fellow of the College of Physicians of Philadelphia. The College is the oldest medical body in the United States, having been founded in 1787 by Benjamin Rush.

Major J. B. Roberts, Indian Medical Service (Bengal), is posted as Residency Surgeon, Indore; Major Lumden, Indian Medical Service (Bengal), posted temporarily as Residency Surgeon in Gwalior, and Medical Officer to H. H. the Maharaja of Gwalior.

"Professor Richard, of whom a very complete *exposé*, compiled by the Newcastle police, was published in a Newcastle newspaper several years ago, and who included Calcutta in his travels, appears to be at present trying to "work" Shanghai for all he can get out of it. This man and his accomplice Maloney were both exposed in the *Record*.

Lieutenant J. Morrison, I. S. M. D., has been specially promoted to the rank of Captain for services in connection with famine works in Berar. He is now Civil Surgeon of Buldana.

We hear that a Hospital Assistant in the Gurdaspur district has been sentenced to a long term of imprisonment for misbehaviour in connection with the plague operations. We await confirmation of the rumour.

Colonel Vincent vacated the post of Resident in Bikanir on the 29th instant. The current duties have been taken over by Major Robinson, I. M. S., Residency Surgeon, as a temporary measure.

Captain P. R. Parry, Indian Medical Service, 16th Bengal Infantry, is granted leave to proceed out of India on private affairs for one year.

Dr. Samuel West has been appointed Joint Lecturer on the Principles and Practice of Medicine in St. Bartholomew's Hospital Medical College.

Colonels Doyle, McCalman, and Lawrie, all I. M. S., are permitted to retire from the service.

Colonel J. F. Supple, R. A. M. O., is brought on the administrative medical staff, *vice* Colonel Hughes.

Captain Swinton, I. M. S., is appointed Medical Storekeeper, Bombay, *vice* Captain Parker.

Colonel Duke, I. M. S., is appointed P. M. O., Calcutta.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE INDIAN MEDICAL RECORD will, upon publication, be liberally paid for, or 250 reprints will be furnished instead of payment. When necessary, to elucidate the text, illustrations will be provided without cost to the authors. Address the Editor, JAMES R. WALLACE, M.D., F.R.C.S., 50, PARK STREET, CALCUTTA.

Subscribers are requested to communicate any temporary change of address not to the Office of this Journal, but to the post-office through which they are accustomed to receive their Journals.

The Indian Medical Association Provident Fund is now working. It offers a simple and safe form of Life Assurance to all medical men and women. Join at once.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Members of the Indian Medical Association will kindly note that while the entrance fee to the Association is fixed at Rs. 5, the annual subscription is reduced to Rs. 2.

Will Members kindly notice that Seven "Calls" of one rupee each are due to the I.M.A. Provident Fund. Delay in payment means a hardship on claimants in distress.

News items of medical interest from all parts of the Indian Empire are asked for by the Editor for publication in the *Record*.

The *Indian Medical Record* offers the following prizes:—Rs. 10 to Rs. 15 for a good Original Article; Rs. 5 to Rs. 10 for a good Clinical Report. Competitors must be subscribers to the *Record*.

Medical Appointments, Transfers, Exchanges are easily and cheaply effected through our special short advertisement page. See terms and apply at once.

VITAL STATISTICS OF CALCUTTA.
Statement of Deaths from Principal Diseases in Calcutta from the 20th April to the 13th May 1901.

EXISTING MUNICIPAL LIMITS.

Year.	Week ending.	CHOLERA.		PLAQUE.				Small-pox.	Fever.	Bowel com-plaints.	All other diseases.	Total.	Total popula-tion according to the Census of 1901.	Ratio per 1,000 of population per annum.
		Sporadic	Epidemic.	Seizures.	Deaths.	Sporadic.	Epidemic.								Deaths.
1901	20th April ...	76	...	...	...	395	389	93	80	53	124	815		62.3
	27th " ...	58	...	...	...	226	215	82	100	42	155	652		40.1
	4th May ...	68	...	...	...	...	160	156	43	49	170	618	843,487	38.2
	11th " ...	47	...	...	...	...	139	134	34	90	206	558		34.5
	18th " ...	77	...	...	...	...	83	79	31	101	183	501		30.9

J. N. COOK, D.P.H., Health Officer of Calcutta.

Different theories have been put forward by different officers as to the cause of the increase, but the Inspector-General of Civil Hospitals rightly observes that they are of a very conjectural character. It is, however, evident that the unusual rainfall of September last had much to do with the increased death-rate.

2. There is some confusion in the section of the report relating to the health of the Port of Calcutta. The explanation of an apparent increase in the number of inward-bound vessels inspected is not intelligible. The magnitude of the work involved in the plague inspections is shown by the numbers involved. Over a quarter of a million persons, passengers and crew, were medically inspected; and the clothing and bedding of 79,255 were disinfected: 55 seamen and 234 passengers were detained as a result of the examination.

3. The large increase of 32,520 in the number of out-door patients is mainly due to the greater unhealthiness of the year, but about one-third of this is only nominal, being due to the inclusion in this report for the first time of the statistics of the Municipal and Dockyard Dispensaries at Kidderpore, which had hitherto been shown in the Report on Charitable Dispensaries. The total number of in-door patients rose from 24,146 to 28,372. In both classes the increase was pretty generally distributed, and was due to the unhealthiness of the year. The increase of 150 out-patients at the Presidency General Hospital justifies the continued maintenance of that department, on which doubts had been thrown. The Shambu Nath Paudit Hospital is stated to possess only 54 beds; but the average number of beds occupied daily is shown as 57.77. Unless there is some mistake, this is evidence of overcrowding. This new hospital is rapidly rising in popularity. The number of European seamen admitted to the General Hospital is said to have fallen, though the numbers arriving in the port increased by nearly 10 per cent. The Dufferin Victoria Hospital for Women increased its tale of out-patients by 749, but the in-patients fell off: their number is still insignificant—a daily average of only 9.56.

4. Excluding the cases treated in the Eye Infirmary, the death-rate for all the institutions rose from 14.60 to 17.57, the highest mortality recorded for eleven years. All the larger hospitals recorded a higher mortality, except the Mayo and the Shambu Nath Paudit. The rate as usual was highest in the Campbell and Howrah Hospitals. The Inspector-General proposes to make a special inquiry in the case of the latter.

5. The number of admissions for small-pox rose from 42 to 240, but the death-rate fell from 47.61 to 42.91. Of the 239 persons admitted into the Campbell Hospital for small-pox, 177, or 74.05 per cent. were unprotected. The attention of the Lieutenant-Governor has already been drawn to the inefficient state of vaccination in the town, which these figures and the statistics previously furnished have brought to light. He has advertised strongly on the imperfect enforcement of the vaccination laws, and has directed a thorough inquiry to be made into the matter through the Corporation of Calcutta. The number of admissions for cholera rose from 355 to 728, the rate of mortality being 61.12 against 63.94. The mortality was highest in the Howrah General Hospital. There were fifteen cases of cholera among the patients of the Campbell Hospital, ten of which proved fatal. The Inspector-General of Civil Hospitals attributes the outbreak of the disease in this institution in two successive years to the vicinity of the hospital to the municipal refuse depot and platform. Steps are being taken to abate the nuisance caused by this; but looking to the fact that the platform has been in existence for a long time without causing an outbreak of disease, the Lieutenant-Governor doubts whether the Inspector-General's conclusion is correct. The percentage of deaths

CALCUTTA MEDICAL INSTITUTIONS.

ANNUAL REPORT.

THE following is the Resolution of the Bengal Government on the Report on the Calcutta Medical Institutions for the year 1900:—

Judged by the statistics contained in the report, the year 1900 appears to have been exceptionally unhealthy. The death-rate per mille in the town of Calcutta rose from 37.8 to 53.88, and in Howrah from 44.56 to 60.50. These figures are based on the population shown in the census of 1891, and a calculation based on the provisional figures arrived at in the census of 1901 reduces the ratio for Calcutta to 43.54, and that for Howrah to 44.69. Even allowing for this, however, there was a considerable increase in the mortality from all the principal diseases. Plague, which prevailed with greater virulence and caused no less than 8,354 deaths against 2,332 in 1899, is, no doubt, the most important factor in increasing the rate of mortality; but the percentage of deaths from other prevalent diseases shows an increase under every heading.

from dysentery was exceptionally high in the General Hospital, being 11.11 against 3.03 in the previous year, and is attributed to a larger number of chronic cases. Malarial fever caused 5,456 admissions against 4,376 in the previous year, and it seems from the rise in the rate of mortality from 9.12 to 11.01 that the cases were of severer type. Four hundred and forty-nine cases of plague were admitted during the year, of which 92 recovered and 357 died, giving a death-rate of 79.51 per cent.

6. There was an increase in the number of operations, the figures for the past two years being 36,023 and 25,109 respectively. Of these cases, 188 ended fatally, giving a percentage of .72 against .61 in the previous year. The increase is shared by all the institutions, except the Medical College and the General Hospital, in which latter institution it is accounted for again by the admission of fewer seamen. The Lieutenant-Governor notices with satisfaction the large number of operations performed by Lieutenant-Colonels R. C. SANDERS, I.M.S., R. D. MURRAY, I.M.S., Major R. H. CHARLES, I.M.S., Captain R. BIRD, I.M.S., and Assistant Surgeon NARENDRA NATH BASU.

7. In the Eden Hospital the number of women and children admitted increased from 1,494 to 1,659. The death-rate for Europeans and Eurasians was 5.30 against 5.45, and for all others 8.96 against 9.55. The mortality among European and Eurasian children was rather high, being 15.87 against 14.10, and the increase is attributed to the admission of a large number of cases in moribund condition. Confinement cases increased from 638 to 673. This institution is steadily, if slowly, growing in popularity, and contrasts favourably in this respect with the Dufferin Victoria Hospital, which seems to make little progress.

8. In the Shama Charan Law Eye Hospital the number of in-door patients rose from 476 to 518, but that of outdoor patients diminished from 13,103 to 12,816. Operations for extraction of lens numbered 290, in 81.37 per cent. of which vision was restored—a most satisfactory record.

9. The work of the nurses at the Medical College and the Presidency General Hospitals, under the supervision of the Clewer Sisters, is favourably reported on by the Inspector-General of Civil Hospitals. The Clewer community has recently sent out an additional Sister for supervising the nursing arrangements of the Calcutta hospitals, and a scheme has been prepared for improving the system of nursing at those institutions.

10. The invested capital of the Calcutta and Howrah Hospitals rose from Rs. 5,91,700 to Rs. 5,96,200—an increase of only Rs. 4,500, which was invested by the Mayo and Howrah Hospitals. Excluding opening balances, the total income amounted to Rs. 9,87,967, or Rs. 9,202 less than in 1899. The cost to Government decreased by Rs. 25,346, while the receipts from paying patients increased from Rs. 55,858 to Rs. 63,346, owing chiefly to the higher rate charged for private rooms in the General Hospital. The receipts from local funds also show an increase of Rs. 7,446; while the receipts from Hospital Port Dues Fund fell by Rs. 9,843, owing to the admission of fewer seamen. Subscriptions from Europeans show a slight increase, but those from natives, the Lieutenant-Governor regrets to observe, fell off by Rs. 2,401. The expenditure fell from Rs. 9,93,290 to Rs. 9,84,631, the decrease being mainly due to smaller expenditure on the new buildings at the Presidency General Hospital.

11. The thanks of the Lieutenant-Governor are due to Colonel HENDLEY, who held the office of Inspector-General of Civil Hospitals throughout the year, for his frequent inspection of the Calcutta hospitals and his valuable suggestions in regard to them.

Current Medical Literature.

MEDICINE.

Black-water Fever.

ZIEMANN (*Deutsche med. Woch.*) gives the following statements as the result of his experience in black-water fever. (1) In some regions severely affected with malaria there are found people who, after having had one or more attacks of malaria, have a tendency to black-water fever which varies from time to time. As a rule, the intensity increases with the number of attacks of malaria, but this is not always the case. It is not necessarily associated with a general hemorrhagic diathesis. (2) This disposition to black-water fever is seen chiefly in people who have been infected with the small parasites of the tropics, or with estivo-autumnal fever, though ordinary tertian or quartan fever may produce it. (3) It is possible that there is an especial virulence of the parasites is produced by local conditions, and that this leads to the hæmoglobinuria. As a result of these observations, he concludes that black-water fever may appear as a result of a new outbreak of malaria; it may be the result of a new outbreak of malaria with the coincident use of quinine; it may also appear in people who are predisposed thereto owing to earlier attacks of malaria by the mere use of quinine without any new attack of malaria. The latter cases are rare. Black-water fever has been observed in Togos negroes when they have never taken quinine. The same has been seen in other regions. It may be seen in very mild forms with only a slight brownish tinge of the urine. One case, which is worthy of attention, was observed by ZIEMANN. In this tropical malaria was present. A dose of $\frac{1}{2}$ of a grain of quinine produced hæmoglobinuria, and about $\frac{1}{2}$ this amount produced albuminuria.

Kernig's Sign in Meningitis.

DR. P. ROGLET (*Gaz. Heb. de Méd. et de Chir.*) says:—KERNIG'S sign is produced by irritation of the meninges of the lower portion of the spinal cord and of the nerve roots that constitute the corda equina. In the healthy subject, placed in the sitting posture, with the thighs flexed at right angles to the trunks and the legs completely extended, the fibres of the flexor muscles of the knee-joint are extended to their extreme limit and their elasticity is almost completely exhausted. In patients suffering from meningitis complete extension of the legs is impossible, due to the contracture of the flexor muscles of the leg. This phenomenon is usually bilateral, although at times it is found on one side only; it disappears when the patient assumes the dorsal decubitus. The time of its appearance or disappearance varies greatly; the same may also be said of the intensity of the phenomenon. When it is present it is valuable as a differential sign from influenza, typhoid fever, infantile paralysis, tetanus and meningismus; its absence does not, however, exclude the diagnosis of meningitis or irritation of the meninges.

Geophagia.

BACCARANI records three cases of earth eating. The first was in a young man, aged 21, who from childhood had been in the habit of eating dust and earth; the second in a girl of 17, who had been in the habit of doing the same thing since birth. In each of these two cases there was an enlargement of the liver and spleen, and backward intellectual condition, diarrhoea, alternating with constipation, vague abdominal pains, anaemia, etc. The third patient was a girl aged 10, whose habit it was to eat charcoal on every possible opportunity. In this case the habit seemed inherited, as the father was a charcoal eater. The habit is probably a cause of the dyspeptic disturbances which frequently arise, and the fact that the charcoal eater displayed many of the signs and symptoms of the earth eater seems to weaken the theory that they are due to parasites or germs taken in the earth, as these would not be so likely to be included in the charcoal dust.—*Gaz. degli Osped.*

Purpura as a Symptom.

THE following conclusions are drawn by ODDO and OLMEER as the result of their extensive researches: (1) Purpura may appear without apparent alteration in viscera, but may be relative to certain visceral lesions. (2) Such relations may be very variable, the visceral lesion being prior, contemporaneous, or subsequent. (3) When prior, the visceral lesion may have been the point of entrance for bacterial infection. (4) In many cases the visceral lesion acts by merely altering the nutrition through auto-intoxication or otherwise. (5) In a large number of cases the previous visceral lesion has a less direct action on the other tissues. There is perhaps rather an induced predisposition caused by the lesion. (6) In other cases there is a concomitant visceral lesion and purpura, both occurring equally. In this class are many cases of renal disease, but also gastro-intestinal, hepatic, pulmonary, and cardiac cases. (7) Visceral hæmorrhage appears as an unusual feature in some particular cases. Lastly, it is possible that a remote series of changes may be set up as the result of purpura in some organs.—*Birmingham Medical Review.*

Early Symptoms of Tuberculosis.

BOZZOLO (*Lancet*) calls attention to the following signs which point toward the existence of tuberculosis in the earliest stages: (1) Albuminuria, alternating with phosphaturia; (2) a pseudo-chlorosis, distinguishable from true chlorosis by the slighter degree of reduction of the hæmoglobin and by the less marked vascular and cardiac disturbances—palpitation, soft pulse, pulsating arteries, etc.; (3) the presence of gastric disturbances like gastralgia, anorexia, nausea, and vomiting; (4) tachycardia in absence of fever; (5) diminution of blood pressure; (6) a rise of temperature following bodily or mental exertion above the slight rise proper to health; in woman a rise of from 0.3 degrees to 0.4 degrees C. is observable before the onset of each menstrual period; (7) an undue tendency to sweat after exertion, mental or bodily, also night sweats; (8) pain in the supra-orbital regions and in the neck; (9) a slight inequality of the pupils, with a tendency to dilation; (10) the occurrence of herpes zoster; (11) enlargement of the spleen. The first seven symptoms mentioned are most frequently found, and are of the greatest diagnostic value.—*Modern Medicine.*

Tropical Dysenteries.

S. M. LONG finds five types of the disease: the fulminating catarrhal, the simple acute, the amœbic (subdivided into the simple amœbic, the trichomonadic, the cercomonadic, and the mixed), the chronic, and the diphtheritic and gangrenous. The sequelæ of the disease as met in the Philippines are: (1) Its chronicity; (2) chronic gastritis and indigestion; (3) obstinate constipation; (4) paralysis (partial) of the large intestines, due either to obliteration of the glands and lack of secretion or to lack of innervation and blood supply; (5) anæmia, from lack of assimilation of food; (6) the association with it of malarial fever; (7) typhoid fever; (8) neuritis; (9) atrophic cirrhosis of the liver; (10) chronic parenchymatous nephritis (11) abscess of the liver; (12) metastatic abscesses of other organs, as of lungs and kidneys; (13) inanition; (14) toxæmia; (15) dilatation of the stomach and intestines. For treatment, the author advises reliance, in the army service at any rate, on calomel with sulphate of magnesium, ipecac given with an opiate, and bismuth subnitrate. For bowel irrigation he prefers hot water to cold. He prefers solutions of silver nitrate, gr. xx. to the pint, for ordinary cases, and quinine for the amœbic cases.

SURGERY.

Splenectomy for Floating Spleen with Twisted Pedicle.

STONE reports, in the *Annals of Surgery*, the case of an unmarried woman, thirty-five years old, with unilateral salpingo-oophoritis, who presented what was thought to be a pelvic tumour, but which proved on operation to be a floating spleen, not greatly, if at all, enlarged. The operation was undertaken for the relief of menorrhagia and dysmenorrhœa, and the spleen was mistaken for a subperitoneal fibroid. As the displaced spleen had not caused constitutional, or indeed any, symptoms, it was thought best not to subject the patient to an additional operation of considerable danger, and accordingly the spleen was allowed to remain. So far as the patient's symptoms were concerned, she had complete relief from her former troubles, and remained well for six years. At the end of this time she was suffering from acute pain extending over the left side and lower half of the abdomen. The abdomen was exquisitely tender to touch, and it was not difficult to find the tumour, whose most prominent portion presented to the left side and rather below the umbilicus. Owing to the very great sensitiveness and nervousness of the patient, it was difficult to make a careful study of the situation and of the relations of the tumour to other organs. The patient presented the symptoms usually observed in patients having an ovarian cyst with a twisted pedicle. Her pulse was quick, and her temperature rose in the evening to 102°F. The tumour was easily decided to be the spleen, and the sudden onset of pain and the fever were attributed to a possible inflammation of the organ. After careful consideration, splenectomy was undertaken. The abdomen was opened in the median line over the middle third. A dark tumour at once presented, which was enveloped by the omentum and the intestines for the most part, although there were some adhesions to the abdominal parietes. After removal of the omentum, it was not difficult to remove the spleen, which was greatly enlarged, quite soft, and of very dark color, in part due to extravasation of blood, and was adherent throughout its entire surface. The mesentery in this case was very long, and the spleen was rotated six times on its axis. The twisting of the pedicle served somewhat to shorten its length, and hence the spleen was elevated from the pelvis, its former abode, to the position described. The veins of the mesentery were very large, in consequence of extreme distension from stasis, and they were filled with blood-clot. This clot was so extensive as to cause anxiety, lest it prove a hindrance to recovery. The greatly distended vessels could be felt as far as the hand could reach under the stomach and along the course of the vessels supplying the stomach, the pancreas, and the spleen. No unusual symptoms, however, appeared to prevent the patient's recovery, which seemed beyond question five weeks after the operation. The specimen weighed almost five pounds.

Mastoid-Disease.

DR. NULBURY (*Philadelphia Medical Journal*) says:—The anatomy of the mastoid and the history of operation for acute mastoid-disease are discussed. Prominent symptoms of acute inflammation are: (1) Intense continuous pain over the mastoid, increased by pressure and radiating over the side of the head and neck, with redness, heat and œdema of the skin. (2) Bulging of the membrana tympani. (3) Swelling and bulging of the posterior-superior wall of the canal, causing narrowing of its lumen, shutting from view all or part of the membrane. The temperature ranges from 99.5° to 103° F. The only absolute sign of mastoid abscess is the finding of pus on operation. If the patient is seen early, it may be possible to abort the attack by antiphlogistic

treatment. Paracentesis of the membrana and antiseptic irrigations, the application of cold by ice-bag, iced cloths or the Leiter coil, leeches, rest in bed, and a brisk purge are recommended. If abortive measures are unsuccessful, operation must be resorted to. The symptoms laid down by POITZER as indicating operation, the method of operation and after-treatment are detailed.

Acute Cystitis.

A very frequent cause of acute cystitis is the decomposition of residual urine. This may quite readily be cured without washing the bladder and without internal medication, simply by drawing off every drop of urine by the catheter every three hours. The catheterisation must be done punctually every three hours, day and night, whether the patient urinates or not. Five minims of the oil of wintergreen twice daily, and the ingestion of a gallon of water every twenty-four hours, will contribute to the cure and will greatly hasten it.—*International Journal of Surgery.*

Syphilis in Infants and Young Children.

ELLIOT (*New Orleans Medical and Surgical Journal*) says:—If "snuffles" are present, irrigation with boric acid or thymol solutions, or bichloride of mercury (1 to 1,000), or with a one or two per cent. aqueous solution of ichthyol, will be suitable. For mucous patches, mild solutions of nitrate of silver, or of mercuric chloride are of benefit, while for the condylomata, cleanliness, dryness, the use of nitrate of silver or of calomel in powder form, five to twenty per cent., are indicated. Fissures at the angles of the mouth I have seen much benefited by balsam of PERU painted on in full strength, ichthyol ointment, ten per cent., or by touching with the nitrate-of-silver stick.

Neglect of Sexual Symptoms.

THE following are the conclusions of CABOT's article: (1) Sexual symptoms in genito-urinary practice should be carefully investigated and thoroughly studied. (2) Indiscriminate use of irrigation is distinctly against scientific teaching, its effect on the genital organs often being injurious and causing the spread of the gonococcus. (3) Before urethral instrumentation is employed, every case should be examined per rectum, with a finger educated to the rectal touch. (4) Various forms of remote nervous symptoms are directly traceable to disorders of the sexual organs.

Exophthalmic Goitre.

DR. PITRES, of Bordeaux, reports that i.c.c. of iodoformed ether injected into the parenchyma of the thyroid body at eight-day intervals for several months has cured six cases of exophthalmic goitre, and the cure has persisted two years. Six other cases were improved to such an extent that they were satisfied with the results of partial treatment and did not return to complete the course. He has thus made 120 injections and never observed any accidents.

Pannus.

PANNUS is due to the irritation produced by the passage of trachomatous conjunctiva over the cornea. NOISZWSKI, in 33 cases of sarcomatous pannus, excised that portion of the conjunctiva producing the friction, and covered the denudation by transplanted buccal mucosa. The vision in each case was improved.—*Przeegląd Chirurgiczny.*

OBSTETRICS AND GYNECOLOGY.

Rupture of the Symphysis Pubis during Parturition.

G. A. HIMMELSBACH (*Philadelphia Medical Journal*) reports a case of the comparatively rare condition of rupture of the symphysis pubis during labour. The patient was a primipara, *ætat.* 25. Labour began at 10 A.M., and the child was born at 3-20 P.M. The presentation was normal, and though measurements were not taken, the bony pelvis seemed ample. The following day the patient had difficulty in turning in bed, and complained of soreness in the pubic region and in the right hip posteriorly, and said that she heard a loud snap when she attempted to turn on her side, which was accompanied by pain. On examination, the pubic bones were found to be separated at the symphysis, the bones gliding on each other. There was also swelling and ecchymosis over the right sacro-iliac joint, but no motion.

The patient was kept on her back for twenty-four days with a broad bandage extending from below the breasts to one-third way down the thighs. There was no disturbance of the bladder function. Two months elapsed before she could walk, but in five months she walked well and evenly, and only complained of pain at intervals. PAWIN thinks that this accident is preceded by a physiological softening of the articular surfaces causing relaxation of the joint. Osteomalacia may also be a predisposing cause. The lesion has been ascribed to undue size and solidity of the foetal head to unfavourable presentations and forceps. There is no anatomical reason why one sacro-iliac joint should be more susceptible to rupture than the other, but experience shows that the accident usually involves the pubic symphysis first, and next the right sacro-iliac joint. It is probable that a certain degree of relaxation of the symphysis occurs in many pregnant women, the ligaments losing their resilient qualities, while the synovia is increased and presses the bones asunder. The pelvis thus becomes incapable of sustaining the body, and gradually yields to the weight above, or some slight movement precipitates the rupture.

Note on the Occurrence of Abortion.

J. B. HELLIER reports the following statistics taken from gynecological patients having in most cases some pelvic disorder, so that the tendency among them to miscarry would be above the average for all married women. The 1,800 women had given birth to 6,974 children, an average of 3.87 each. They had had, according to their own statement, 1,288 abortions. This amounts to about one abortion to every 5½ children. The number of women in the 1,800 who had had abortion, but no children, was 58. Deducting from the 1,800 184 women who had never been pregnant, 1,616 remain. So that of 1,616 women who had been pregnant, 58 had had one or more abortions, but had never gone to term. Thus it follows that among a group of women in whom the frequency of abortion might be supposed to approach the maximum, 96.5 per cent. of those who became pregnant did, sooner or later, bear one or more children at term.

Fate of Sponges, Ligatures, and other Foreign Bodies in the Peritoneum.

CABL BRCK (*Chicago Medical Record*) states that foreign bodies left in the abdominal cavity may be absorbed, encysted, or may enter the intestine or uterine cavity. Sponges are left by accident in the abdomen, but silk and other unabsorbable ligatures are used designedly and may also cause

serious trouble. Some surgeons think that the ligature remains encysted for a long time, others that in course of time it is absorbed; but experiments upon animals go to prove that, if it does not become encysted, it passes out of the body after suppuration, and enters into the intestines, uterus, or bladder. A child operated upon for hernia and ligation of the sac with sterilized silk suffered six months later from bladder symptoms. On examination, a stone was found, and when removed, proved to be an encysted silk ligature. In another case the patient suffered from a tender tumour the size of a child's head, giving rise to great pain, particularly when the bowels moved. This was diagnosed as a case of inoperable cancer, but was afterwards demonstrated to be a large convolution of infiltrated omentum, in the centre of which was a loop of small intestine perforated on its convex side, while on the omental side a ligature of thick silk protruded into the bowel from a granulating cavity. Six months previously the patient had been operated upon for hernia, when the omentum was ligatured with strong silk and the stump pushed into the abdomen. In a third case the patient was operated upon for double pyosalpinx, silk ligatures being used. She subsequently developed profuse leucorrhoea, and on curettage a silk ligature was removed from the uterus, and the condition cured. Several months later a fecal fistula formed, due to another ligature perforating the bowel.

The process of sloughing may go on without any significant disturbance, or hæmorrhage may occur from the bowel, bladder, or uterus. Where the foreign body passes into the bowel, there may be tenesmus and foul rectal discharges, or stercoral fistula with an abscess. When it passes into the bladder or pelvis of the kidney, a stone may be formed, giving rise to the usual symptoms. In the intestine a small scar, if the process is completed, may be without significance; but if two portions of bowel are connected, which are far apart, for example duodenum and colon, the fecal fistula may be very serious, as all the food passes the short road.

Absorbable sutures should be used as far as possible. When non-absorbable sutures are used, the thread should be as small in size and quantity as possible, and interrupted used in preference to continuous sutures. If sloughing of a buried suture be suspected, a way should be opened up for its escape, and so prevent it taking a dangerous route.

Small-pox in Fetus aborted at the Fifth Month.

C. W. RUMMEL (*Philadelphia Medical Journal*) reports the case of a young married woman, pregnant for the first time, who on the 30th June was taken with chills, headache, lumbar pains, and fever. No physician was called, but her father had just recovered from small-pox. Her condition improved when the eruption appeared, and she was soon up and about. On July 21st she began to have pains, which gradually increased in severity, and the child was born on July 25th. The fetus, which was of five months' development, was covered with an eruption, most marked on the face and chest. There were confluent lesions on the face, and many of the vesicles showed traces of umbilication. The day before the woman's pains began, the health officer had fumigated the house with formaldehyde, to which fact the friends attributed the miscarriage.

Cervical Metritis.

It is necessary neither to consider nor to treat cervical metritis as an isolated affection, since the greater number of cases are complicated by a similar affection of the fundus. The term "cervical metritis" should, in the majority of cases, be replaced by that of cervical endometritis, since the inflammation of the mucosa is only rarely accompanied by a lesion of the deeper tissues—MUNDES DE LEON, of Amsterdam.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

New Test for Bile.

PROFESSOR E. H. BARTLEY, M.D. (*American Druggist*), says that the use of ferric chloride and hydrochloric acid as an oxydising agent is well known, and is resorted to in the detection of indoxyl in the urine. The method of its use for this purpose is to add to the urine an equal volume of strong hydrochloric acid, and then a few drops of the ordinary test solution of ferric chloride. The potassium indoxyl-sulphate is thus decomposed, and the indoxyl is oxydized to indigo blue. The indigo is dissolved out of the solution by shaking with about two cubic centimetres of chloroform, in which it is soluble. As the chloroform separates, it carries down the indigo and forms a blue indigo-chloroform layer at the bottom of the test tube.

If this same test is applied to a urine containing bile-coloring matters, the solution assumes, on adding the ferric chloride, a beautiful emerald-green color. This green coloring matter is insoluble in chloroform, and hence does not interfere with the indican test. Bile and indican can therefore be tested for at the same time and in the same solution. The test was first observed by the author in examining faeces, and the test was made as follows: An alcoholic extract of the faeces was made and filtered clear. To this alcoholic solution hydrochloric acid was added, and then a few drops of ferric chloride solution. An intense green color was immediately produced. This reaction has been tried upon a great many specimens of urine, and no sample not containing bile has been found to give a green color. He believes it to be the best, the most characteristic, and the most delicate test we possess for the presence of bile in urine or faeces. He has not been able to find in the literature any mention of this process for the detection of bile, although it seems strange that it has not been mentioned, as the reagents are commonly used together in the test for indican.

The Ovary: its Relation to Normal Functions and to Pathological States.

DR. SAMUEL W. BANDLER (*New York Medical Record*), in an extended article, demonstrates that the relation of the ovary to the normal functions of a special character in women is decidedly clear, and that its relation to pathological states is highly probable. The weaker sex, with its tendency to these affections and to hysteria, will probably in the future be less frequently treated as the possessors of nerves alone. In certain affections he believes that the action of ovarin, verifying, as it does in a measure, the results of animal experimentation, will lead to a more rational treatment of these diseases in the female, both medically and surgically.

Rheumatic Diathesis and Malarial Fever.

COBB, in an article in the *Clinique Moolagan*, develops the miasmatic theory, and draws the following analogy between malarial and rheumatic fever:—

"1. Malarial fever is irregular in type and characterised by variations in its course. So is rheumatic fever.

"2. Profuse perspirations characterise the course of malarial fever; so they do that of rheumatic fever.

"3. During the course of malarial fever the urine is loaded with urates; so it is in rheumatic fever.

"4. One attack of malarial fever seems to render the system more liable to its recurrence; the same is true of rheumatic fever.

"5. Malarial fevers often leave an impress on the system which renders the sufferer liable to disturbance and the recurrence of some of their symptoms from slight causes. Rheumatic fever often has the same effect.

"6. Unless arrested by treatment, malarial fevers are apt to have a prostrated and uncertain course; so in rheumatic fever.

"7. The course of malarial fever is speedily arrested by large doses of the cinchona compounds. The course of rheumatic fever is as speedily checked by large doses of the salicylic compounds.

"The poison which gives rise to malarial fever, and that which gives rise to rheumatic fever, are distinct and separate agencies; but the analogies noted in the natural history and course of the ailments which they respectively produce are sufficiently close to indicate the probability of their being allied in nature and in mode of action."—*Charlotte Med. Jour.*

Pathology of Alopecia.

BUSCHKE (*British Medical Journal*), following up the observation of GIOVANNI that patients to whom he was administering acetate of thallium became affected with alopecia, has studied the effect of small doses of this drug on mice, given in their food. The result of its administration was that the hair came out on different parts of the body. This effect was not due to any appreciable local action of the drug on the skin, but, in BUSCHKE'S opinion, to certain disturbance affecting the peripheral nervous system of a trophic nature.

Contribution to the Technique of the Widal Test.

A. ROBIN (*Philadelphia Medical Journal*) elucidates the following problems which present themselves: (1) The dilution. (2) The best way of obtaining a motile culture free from "natural" clumps. (3) The differentiation between a true and a pseudo-reaction. (4) The time limit. There should be high dilution (1:20 to 1:40), since bacteriologists have observed that the difference between normal blood and that of typhoid patient is one of degree and not of kind. The writer then describes an appliance for drawing up one drop of blood, which is both accurate and simple. This method is essentially a modification of CABOT'S medicine-dropper method. In order to obtain a motile organism, one needs only to get from a bacteriologist a pure culture of typhoid bacilli, well tried as to their motility. The writer uses a combination of both the bouillon and agar cultures. An agar culture is made and placed in the incubator, or kept at room-temperature for twelve to eighteen hours, when either two or three loopfuls are transferred into bouillon until a marked turbidity results, or a small quantity of bouillon is added to the agar culture, and enough of the growth scraped off to produce a uniform cloudiness. By this method the natural clumps, so frequently observed in bouillon cultures, are entirely avoided. To insure still further against error, a slide with two concavities is employed; on each of two cover glasses is dropped a loopful of the cultures; on one the blood diluted 1:20 to 1:40, while the other serves as a control. The WIDAL test can generally be more satisfactorily performed with an oil immersion. As to the time limit which determines a positive reaction, the author proposes the following: Dilution, 1:10; time limit, five to fifteen minutes; 1:20, fifteen to thirty minutes; 1:40 to 1:100, thirty to sixty minutes; 1:100 to 1:200, one to two hours; that is, if within the specified time a considerable number of bacilli are found actively motile, or, if dead, fail to arrange themselves in clumps, the reaction is to be pronounced negative, irrespective of the clumps which have already formed.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Contagiousness of Leprosy.

THE last fasciculus of *Leprosy* contains an interesting contribution by Dr. DOUGLAS W. MONTGOMERY, of San Francisco, relating to a white woman who contracted leprosy in that city. The patient was a widow, aged 50, born in Ireland, which country she had left when quite young to settle in New York City, where she lived for six years. In 1870 she went to San Francisco, and there married an Irishman, who himself had lived in Ireland, Boston and San Francisco. He died in 1882, aged 33, of hæmorrhage of the stomach, while under the care of Dr. FITZGIBBON, of San Francisco. This gentleman had never seen any sign of leprosy in the husband. Two female children were born of the marriage in 1874 and 1876 respectively; both were healthy. The younger, who had regularly slept with her mother, presented no sign of leprosy. Of course, the question of commerce with the Chinese, who are numerous in San Francisco, arose; but the patient had lived remote from the Chinese quarter. Dr. FITZGIBBON thought the family had at one time lived near a Chinese laundry, but this was not considered of any importance etiologically. Both mother and daughter stated that they had never seen a leper. There was no doubt about the patient being a leper, as numerous bacilli lepræ were found in the juice squeezed from one of the nodular lesions. The mode in which the disease had been contracted appeared at first sight to be inexplicable. It turned out, however, that the woman had for years lodged in her house a man who had been well known to Dr. GEORGE L. FITCH as suffering from leprosy of a marked nodular type.—*Brit. Med. Jour.*

Preponderance of Male Stammerers over Females.

DAVID GREEN says:—Out of 256 stammerers, 229 of whom were males and 27 females, he found the following conditions: Number of cases of stammering caused by faulty inspiration, males 139, females 3; by faulty expiration, (a) mismanagement of the voice, males 25, females 20; (b) defective articulation, males eight, females 0; (c) mismanagement of the voice and defective articulation, males 57, females four. The reason assigned for the preponderance of male stammerers over females is the fact that in the male subject ordinary, quiet respiration for vital purposes is effected almost exclusively by the activity of the diaphragm; but, in speaking, a more considerable emptying of the quantity of air in the lungs must take place, and this can be effected only through the combined processes of diaphragmatic and costal breathing. In females, costal breathing is the habitual mode of respiration, hence their lungs are generally well supplied with the quantity of air which is necessary for speaking purposes, and cases of stammering caused by deficient inspiration are very rare among them.

Effect of Smoking on the Community.

MR. MAX BREITUNG (*Dtsch. Med. Zeit.*) says that most of the ailments attributed to smoking are due to the simultaneous excessive use of alcohol. Light and medium cigars are rarely harmful. The regular use of from twenty to thirty cigarettes daily cannot be without an evil effect upon the smoker. Cigarettes and cigars should not be sold to minors. Slight deafness and dimness of vision may be attributed to smoking, while the "tobacco heart" and chronic inflammation of the respiratory passages are due to

excessive cigarette smoking. Moderate smoking of light and medium cigars and the moderate use of alcohol are advised.

Training of Sight.

LORD WOLSELEY having lately remarked upon the good sight of the Boers as one cause at least of their good shooting, and having ascribed this good sight to its constant exercise in the open air, Mr. BRIDGELL CARTER has pointed out that it is not merely a question of open air, but of the training of the sight upon things that are far off and difficult to see. The defective vision possessed by so many children who have been brought up in towns is not caused by errors of refraction alone, common as these are, but an actual deficiency in acuteness of vision, a lack of development in the nervous structures involved in the act of seeing. "Vision," he says, "like every other nerve function, must be cultivated for the attainment of a high degree of excellence. The visual power of London children is not cultivated by their environment. They see the other side of the street in which they live, and the carts and omnibuses of the thoroughfares. They scarcely ever have the visual attention directed strongly to any object which it is difficult to see or which subtends a visual angle approaching the limits of visibility; and hence the seeing function is never exerted to anything like what should be the extent of its powers. With a country child the case is widely different." Mr. CARTER would like to see a place given to excellence of vision among the various physical qualifications which are habitually tested by competition, and for which prizes are awarded, and he urges the desirability of volunteers taking up exercise and training of sight. "It is at least certain that our riflemen would not shoot worse for having learned to see better."—*Hospital.*

Medical Certificates.

OF all the duties a medical practitioner is called upon to perform, there is none requiring greater care than the giving of certificates to patients. These are so frequently required, and often on such trivial grounds, that carelessness is apt to be engendered, which does the profession much harm in the eyes of the public. If an idea got abroad that medical certificates could be procured by anyone on the slightest pretext, incalculable mischief would be done. An unfortunate instance of carelessness in this respect is reported from South Wales. According to the *Merthyr Express*, an application was recently made to the county court judge for an execution against a debtor, who had for a long time past evaded this process by means of a medical certificate, to the effect that he was disabled from following his occupation through rheumatism. From the evidence produced by the plaintiff, it was made clear that the defendant, during nearly the whole of the time covered by these certificates, had been working in a colliery, and the judge expressed much indignation at the deception that had been practised. The practitioner responsible for the certificates stated that the defendant had been sending regularly to his surgery for medicine, and had asked for the certificates in question; but the defendant denied this and threw the blame on his wife. His Honor said that the doctor's defence was most unsatisfactory. Hitherto he had accepted a medical certificate as full and conclusive evidence that a man was unable to do his work, but in future he should be more careful. It is sad to find discredit brought on the profession in this way by the carelessness of members who ought to do their best to merit the confidence that judges and other officials are quite ready to put in them, but who, for their own sakes, must necessarily be cautious when such flagrant examples of abuse are brought to their notice.—*Brit. Med. Jour.*

THERAPEUTICS & PHARMACOLOGY.

Action of Morphine on the Stomach.

A. HIRSCH (*British Medical Journal*) draws the following conclusions from experiments on dogs in which a cannula had been permanently fixed in the duodenum: (1) in doses of 0.01 gram (about $\frac{1}{10}$ gr) or more per kilo. of body weight, morphine, when injected hypodermically, causes the gastric contents to be retained for hours; (2) this inhibition of expulsion is due to persistent spasm of the pylorus; (3) as long as the pyloric spasm lasts, there are powerful peristaltic movements of the pyloric portion if the stomach is full, or weaker movements if the stomach is empty; in either case the cardiac end of the stomach remains at rest; (4) the secretion of HCl is at first diminished, but later is abnormally large; (5) the pyloric spasm and the peristalsis of the pars pylorica are due to a stimulation of the centres for the contraction of the pyloric sphincter and pars pylorica situated in the corpora quadrigemina; (6) the initial inhibition of secretion of HCl is probably produced locally by the excretion of morphine through the gastric glands; the later hypersecretion is probably of central origin. The clinical observations of BRIGEL and others show that the effects of ordinary doses of morphine in man are: (1) Delayed expulsion of the gastric contents; (2) initial diminution and later increase of the secretion of HCl, both of which are proportional to the dose; (3) a dose given hypodermically produces much more marked disturbances than an equal dose given by the mouth. Since these observations agree in the main with the results of the writer's experiments, it is probable that morphine produces in man, as in animals, a more or less lasting pyloric spasm.

Treatment of Glycosuria and Diabetes Mellitus with Sodium Salicylate.

DR. R. T. WILLIAMSON has used large doses of sodium salicylate (20 grains four times a day) in certain forms of diabetes mellitus with the greatest benefit. In one case, in which there was a daily estimation of the amount of sugar excreted, the administration of sodium salicylate during several periods was in each instance followed by a marked decrease in the amount of sugar, until, finally, the urine became entirely sugar-free and remained so. Nineteen other cases are cited in which sodium salicylate was given. It is not a specific for diabetes; in the severe cases it does not usually produce any marked diminution of the sugar excretion, but the patients, as a rule, express themselves as feeling better while taking it. The drug should be carefully watched and should not be given if serious complications are present.

Diet in Typhoid Fever.

JAMES TYSON (*University Medical Magazine*) strenuously upholds the milk diet as being the safest, most satisfactory and most convenient. Absolute inability to take milk may necessitate a deviation from the rule, but the condition is seldom met with. A tendency to constipation can be counteracted by not boiling the milk, and by the addition of buttermilk, animal broths, especially chicken broth, beef juice, and peptonized foods to the diet. Should evidences of inability to assimilate milk continue to present themselves, there is no more satisfactory nourishment than albumen water. The whites of two eggs to a pint of cold water is an average proportion, and a drachm of lemon juice or brandy or whisky may be added. The occurrence of hæmorrhage calls for the immediate reduction of food. As to the transition to convalescent diet, the author lays down the rule to adhere to liquid food until the temperature has been normal one week. Then he allows a

single soft-boiled egg. If nothing happens in twenty-four hours, he allows an egg daily, then, after two or three days, soft milk toast tentatively, then rice or oatmeal; later, a bit of steak may be chewed, or two or three small oysters. Chicken is one of the last foods allowed.

Dyspepsia.

SIR T. LAUDER BRUNTON, in the *Clinical Journal*, emphasises the following points in instructing patients troubled with dyspepsia:—

1. Eat slowly, masticate and insalivate thoroughly; and, if necessary, follow SIR ANDREW CLAWKE'S rule—count the bites.

2. Take the solids and liquids separately, so as not to dilute the gastric juice nor weaken the digestive ability of the stomach.

3. If necessary, let the patient take his farinaceous food and the proteids at different meals.

4. The best fluid is hot water, taken early in the morning and an hour or two before lunch and dinner.

(a) Alkalies before meal stimulate secretion of gastric juice.

(b) Acids before meals check acid secretions of the stomach.

(c) Where the food remains in the stomach an unusual length of time, lavage should be resorted to.

To Remove Tattoo Marks.

THE *Cyclopædia of Medical Surgery* describes the method of VARIOT as follows: The skin is first covered with a concentrated solution of tannin, and re-tattooed with this in the parts to be cleared. Then an ordinary nitrate of silver crayon is rubbed over these parts, which become black by formation of tannate of silver in the superficial layer of the derma. Tannin powder is sprinkled on the surface several times a day for some days to dry it. A dark crust forms, which loses color in three or four days, and in two weeks comes away, leaving a reddish scar, free of tattoo marks, which in a few months is but slightly noticeable. It is well to do the work in patches about the size of a dollar at a time. The person can thus go on with his usual occupation.

PAPAIN IN REMOVAL OF TATTOO MARKS.

ORMANN-DUMESNIL recommends the following for removal of tattoo marks:—

R. Papaine ...	...	...	3iss.
Acid. hydrochlorici dil.	...	...	℥.xv.
Aque destil.	...	...	℥i.
Glycerini	...	...	℥iii.

M. Rub the papain in a mortar while adding the mixture of water and acid, allow the paste to stand an hour, add the glycerin, and in three hours filter. Sig.: For local application three or four times daily.—*Jour. Amer. Med. Assoc.*

Nasal Spray in Acute Catarrhal Conditions.

R. Ac. carbol ...	...	...	gt. viiss.
Ichthyol ...	...	...	℥i.
Spr. vini rect.	...	...	℥iiss.
Aq. destil.	...	...	ad ℥ij.

M. S. Use two or three times a day.

In Stomach Washing.

R. Sodii bicorat ...	...	...	℥ij.
Ac. salic	...	...	℥ss.
Ac. borici	...	...	ad ℥iv.

M. S. Add a demer teaspoonful to a quart of warm water.

Anaphrodisiac in Gonorrhœa.

R. Ext. ergotæ fld	...	...	℥xv.
Tinct. gelsemii	...	...	℥v.
Potass. bromidi	...	...	℥xxx.
Tinct. hyoscyami	...	...	℥xxx.
Syr. aurantii	...	q. s. ad	℥ss.

M. S. Shake and take a dose at bedtime.

Correspondence.

THE CHEMICAL EXAMINER TO GOVERNMENT: A VISIT TO HIS LABORATORY.*

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Within the past few years, and almost unperceived, there has been constructed on a plot of land, a few hundred feet to the west of the Calcutta Medical College, a noble three-storied building in which are located the office and magnificently fitted up Laboratories of the Chemical Examiner to Government. This officer's work is many-sided; on the one hand, on his report often depends the life or freedom of prisoners and other murderers on whom the law has fixed its talons in cases of suspected human and cattle-poisoning, and other offences in which special evidence from chemical and microscopical examination of exhibits is needed for the establishment of the prisoner's guilt. About 2,000 murder cases a year are dealt with by the Chemical Examiner and his Head Assistant, who is styled Additional Chemical Examiner, in order to allow of his being able to give evidence in Court in place of the Chemical Examiner, whose other duties would be seriously interfered with if his attendance at Court was required very frequently. Again, a large contractor tenders, say, to supply here some hundreds of maunds of ghee or other supplies for the use of native troops; his samples are sent to the Chemical Examiner, on whose report depends whether his contract will be accepted or rejected. Again, all petroleum imported into India through Calcutta has its flash point tested by this department, and the report decides whether or not it is to be imported or not. Again, the authorities at the various Arsensals or Ammunition Factories, such as Dum-Dum for small arms and ammunition and Cossipur for shells, send every year nearly 600 samples (as shown by the Chemical Examiner's Annual Report) of fulminate, and in addition a large number of substances used by them in making cordite, shells, military rockets, etc., are sent for analysis as to fitness for the purposes required. Or again, the Customs authorities are in doubt as to admitting into India articles of merchandise bearing certain descriptions as being genuine or partly adulterated, and again many spirits and drugs containing spirit which cannot be dealt with by the Customs House Appraiser as being of too complicated a nature chemically are reported on by the Chemical Examiner and duly levied accordingly. The Chemical Examiner has to decide as to the quality of dyes, paints, and all kinds of commercial products. The range of work done in the way of commercial analysis has probably no parallel anywhere. There is no kind of commercial product which cannot now be thoroughly analysed in the Calcutta Chemical Examiner's Laboratory. Since the countervailing duties on foreign sugar were imposed, this product has been a very much analysed one, and special instruments called Polariscopes, costing each about £150, have been imported for this purpose. These are but very few of the matters which demand this officer's undivided attention, day by

* The above observations are from a special article in the *Englishman*.

day, in hundreds of cases. Some 5,000 cases for analyses are dealt with annually. From the dictum of the Chemical Examiner there is no appeal, based as it is on exact scientific laws and the latest researches in that most fascinating branch of Chemistry—qualitative and quantitative analysis. In this connection, it may be mentioned that there is a library attached to this establishment, where the latest works on this and cognate branches are found, the like of which does not exist in any other part of India.

The building is a three-storied one. There are rooms containing shelves filled with chemicals and reagents required for the work; one is devoted to housing four delicate balances, each capable of weighing to the 10,000th part of a gramme; a complete dark room and appliances for photography; a room where the medico-legal exhibits are worked on; another containing 52 raised chambers, with an extraction shaft by which the noxious fumes escape, and through these chambers a steam flue runs, so that drying by steam-heat, evaporating to any required degree, boiling and other processes requiring heating, can be carried on at one and the same time. Each of these chambers contains a complete case, as it comes in from any part of Bengal or Assam, so that there can be no confusion, and the results of each analysis are sealed in proper receptacles and placed in a strong room, barred and locked in case of further reference. This room is rather a gruesome one. In each of the chambers are seen some hideous-looking preparations of some part or other of the human body, mainly viscera, either being boiled, dried or evaporated, and all jealously guarded from any outside interference. The fate of many a human being lay in those dark messes, if and when, with the aid of chemical reagents, they would yield either the metallic or vegetable poisons usually used in poisoning. Then there is a room set apart for gas analysis, another for analysing water, a third for spirits, another again for oils and paints, another yet for petroleum and other explosives; another room was full of physical apparatus and several fine electric batteries and coils. Another room was exclusively devoted to the storing of thousands of bottles of chemical reagents alone, the most essential part of analytical work. In point of fact, the rooms on all three floors were separately devoted to particular branches of the delicate analyses carried on without intermission here, and the apparatus in each was of the most perfect of their kind that could be obtained from every part of the world. There is a small steam-engine below which supplies all the heat required. By the way, notice must not be omitted of some cats which our representative saw tied to railings in the verandah. Anti-vivisectionists need be under no apprehensions, for they are kept for purposes of being experimented on in a very mild fashion, and only for the public good in the detection of crime. No knife is used, and the only discomfort they experience is the dropping into their eyes of some drug, like belladonna, for the purpose of observing the dilatation of the pupil and kindred effects, or being fed on unpleasant mixtures—often having some small portion of poison administered which has been separated from the viscera of some poisoner's victim.

A word now as to the staff who carry out all these delicate analytical processes. Captain BEDFORD, the courteous Chemical Examiner to Government, has, as his immediate subordinates, Dr. CHUNILAL BOSE, Rai Bahadur, the Assistant Chemical Examiner, and four other qualified Native Assistant Surgeons, all trained in the Calcutta Chemical Examiner's Department as chemical experts. Dr. BEDFORD fills the Chair of Chemistry and Physics in the Medical College, and gives annually a course of seventy lectures to a class of over 300 students, European and native, and as the course extends to two years, the students attend 140 lectures—a fuller and more complete course than that given to students in England. There is a splendid lecture room or theatre on the second floor, with several rooms attached for giving practical demonstrations in this course, and, needless to say, these rooms and laboratories are replete with the newest standard apparatus, and necessary chemicals and reagents. In addition to the systematic lectures, Dr. BEDFORD has to give forty demonstrations in practical chemistry annually. This department checks and regulates, with the aid of standard apparatus, the instruments for testing the flash point of petroleum at every testing station in India—a goodly number. All these are re-verified every two years, which entails much time and work. As a whole, this Laboratory is the most complete, well equipped, and up-to-date establishment of the kind in every respect in India.

Yours, &c.,

SENIOR MEDICAL STUDENT.

THE FOREST DEPARTMENT AND THE PREVENTION OF DEATH BY WILD ANIMALS IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The Ootacamund correspondent of the *Pioneer*, in the issue dated 19th May, mentions that the Forest Department in the Nilgiris have ceased to have fire traces for the protection of forests, finding that fire conservancy permitted the development of an extraordinary crop of undergrowth which, when it did catch fire, practically destroyed the fire-protected forests doing much more damage than a yearly fire would.

If the Forest Department of the N.-W.P. and Oudh could see its way to relaxing its fire conservancy rules, it would be a great boon to the inhabitants of villages in the vicinity, and lessen the feeling of exasperation at present existing in some districts.

Fire conservancy rules are of necessity irksome to all affected by them, even when worked with humanity and discretion; but, are almost unbearable as at present worked in the N.-W.P. and Oudh.

It would be an interesting enquiry to what extent forest conservancy, as understood by villagers, is responsible for the decrease of population in certain districts, brought to light by the recent census.

"HUMANITARIAN," in your issue of the 10th April 1901, has raised a question which will not be permitted to rest till it has attracted the attention of the Government of

India, and if the loss of life consequent on forest conservancy everywhere, and the inefficacy of forest fire protection in Ootacamund, leads to the abolition of the present methods of working, the unfortunate villagers living in the vicinity of forests will have to thank Sir ANTONY MACDONNELL for his blunder in framing the Civil Service Shooting Rules, dated 9th July 1901.

Any discussion of measures pertaining to preventible death-causes finds a fitting place in the columns of the *Indian Medical Record*, hence this letter from

Yours, &c.,

A SUFFERING ZAMINDAR.

HOT WEATHER AND MEDICAL EXAMINATIONS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The newly modified rules about septennial examinations for promotion of Civil Assistant Surgeons come into force from the current year, and in conformity with them there was no examination in May this year. The reason put forward to justify the abolition of the May examination is that "the heat causes inconvenience."

The septennial examination was first introduced in 849 (i.e., over half a century ago, *vide* Bengal Medical Regulation of 1851, chapter xl), and since then it has always been held twice a year—in November and May. Even now the departmental examinations of Assistant Magistrates, Deputy Magistrates, Police Officers and Forest Officers are held twice a year, and the heat of May causes no inconvenience in their case. Thus the theory of excessive heat is altogether untenable.

This change from half-yearly to yearly examinations does not affect the new candidates at all, but it will cause considerable pecuniary loss and great hardship to those who are not so fortunate as to pass in their first attempt. With six-monthly examinations the unsuccessful candidates would have a chance of promotion six months after their failure: but with the present rules their promotion would be stopped for full one year. We draw the attention of Government to this severity of the new rules, and trust that they may be so modified that those who fail in one or two subjects may be allowed to reappear in those subjects after six months.

Yours, &c.,
TRUTH.

THE W. M. O. PROVIDENT FUND.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—In your issue of the 22nd instant, I see a letter from Captain WESTON re Warrant Medical Officers' Provident Fund. I now take the opportunity of addressing you on the subject, and to inform you that I am also one of the first members of that Fund. I joined it at the onset, paid an entrance fee of Rs. 10, and a monthly

fee of 1 % on my pay. I paid regularly till about 1890, or 1891, when things seemed to me not to be working as they should. I consulted Capt. MCARDLE, who was at that time in charge of the hospital I was serving in (Moetan). I wrote to Captain WADE on several occasions during this period—1890-91—but could get no reply, so I decided not to pay any more instalments till I heard something definite as to the working of the Fund. I must now let you know that I am in possession of all the rules, also the annual reports, while Mr. E. A. THOMPSON was the Secretary of the Fund; but I regret to say I have mislaid some of the receipts for the money paid in, though I have most of the receipts. If the documents I have in my possession will assist you in any way, I will gladly bring them in to you, or send them in: there is a list of members with each annual report.

Yours, &c.,

W. D. BUSHER,

1st Class Assistant Surgeon,

In Sub. Medical Charge, Station Hospital.

Barrackpore, 25th May 1901.

LACERATION OF THE PERINEUM AND ITS BEARING IN SECONDARY STERILITY.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Laceration of the perineum is of more frequent occurrence than is generally supposed, and it is more common in the primipara than it is in the multipara. I am not, however, going to dwell upon the causes, symptoms and treatment of this puerperal injury, for they have been more fully and ably dwelt upon in the text-books than can be expected from myself. But it is a fact that has often come under my observation that laceration of the perineum is, in many instances, followed by sterility. I do not see any plausible reason why it should be so; but still the fact remains that not a few of the cases of ruptured perineum become sterile. Possibly in those cases the tissues of the posterior wall of the vagina are also involved; and that after the wound is healed, a fistulous opening at the vaginal wall remains patent, leading into an artificial *cul-de-sac* formed by fibrous tissue during the process of repair; and it is this rent through which the seminal fluid, after each connection, finds its way out of the vaginal canal into the artificial *cul-de-sac* outside, and thus effectually prevents future conception.

Yours, &c.,

DOORGA DAS SEN, L.M.S.,

Retired Assistant Surgeon.

BEHAWANIPORE,

Calcutta, 25th May, 1901.

TRADE NOTICES.

MERCK'S DIONINE has proved to be a mild and pleasant substitute for morphia and codeia in the treatment of Pulmonary Phthisis, Laryngitis, Bronchitis, Emphysema, Influenza, Pneumonia and Whooping Cough. It is perfectly non-toxic, and appears to be a most valuable remedy in breaking off the morphia habit, as it can be substituted for morphia.

MERCK'S IODIPIN may be employed in all diseases in which iodides are indicated, viz., the various forms of neuralgic pains and severe Neuralgia, Chronic Articular Rheumatism, Gonorrhoeic Sciatica, Bronchitis and Bronchial Asthma, &c., but the most striking results are obtained with Iodipin in Syphilis, particularly in Tertiary Syphilis. In this disease it is to be preferred to all other remedies; it has not failed even when other anti-syphilitic measures were of no use. One hypodermic injection of 20 cc. of Iodipin 25% daily for ten consecutive days, or several injections every second or third day, is, as a rule, sufficient to effect a cure in Tertiary Syphilis.

Government Medical Gazettes.

BOMBAY.

Hosp. Asst. Narayan Dhoneo, from Famine duty, to Civil Hosp., Bijapur.

Hosp. Asst. Bhuya Singh, from Dispy. Chandor, to Dispy. Yeola.

Hosp. Asst. Krishnaji Dattatraya, from Dispy. Yeola, to Dispy. Chandor.

The undermentioned are granted leave :—

Tempy. Hosp. Asst. Bulchand Jawharmal, in tempy. med. ch. of the Keti Bunder Dispy., privilege leave for two months from the 31st Dec. 1900.

Tempy. Hosp. Asst. Damamal Jethanand, in ch. Dispy. Mitti, privilege leave for one month from the 20th Jan. 1901.

Hosp. Asst. Shaik Umar Shaik Ibrahim, attached to Shadiipalli-Balotra Ry. Works, Nara, privilege leave for three months from the 31st Jan. 1901.

Hosp. Asst. Khilamal Hashmatral, in sub-med. ch. of the Central Prison Hosp., Hyderabad, privilege leave for two months from the 5th Feb. 1901.

Hosp. Asst. Ramchander Vishnu, in ch. Dispy. Shirpur, privilege leave for three months from the 1st March 1901.

Hosp. Asst. Mohan Barday, in ch. Dispy. Shahapur, privilege leave for 20 days from the 16th Jan. to the 5th Feb. 1901.

Hosp. Asst. Mahadeo Manohar, in ch. Dispy. Haveri, furlough for one year from the 4th March 1901.

Hosp. Asst. Pirozsha Edulji, sick leave for six months from the 19th Oct. 1900.

Hosp. Asst. Bhogilal Keshavilal Vyas, privilege leave for one month and nineteen days from 12th Oct. to 30th Nov. 1900.

Hosp. Asst. Atmaram Tatiyaji, attached to the Civil Hosp., Bijapur, privilege leave for three months from the 16th Feb. 1901.

Civil Med. Pupil Mahomed Amir Khan, attached to the Civil Hosp., Sholapur, leave without pay for one month from the 20th Jan. 1901.

Hosp. Asst. Keshavilal Chotalal, in ch. Dispy. Ilav, privilege leave for twenty-five days from the 26th Jan. 1901.

Hosp. Asst. Baswanting Chetaring, in ch. Dispy. Parola, sick leave from 8th to 22nd Jan. 1901.

The undermentioned is admitted into the Dept. as a Civil Med. Pupil in place of Civil Med. Pupil Balwant Govind Godse, transferred. He will bear the gen. number marked against his name :—

Sebastian Coelho, No. 287, Civil Hosp., Ahmednagar, forenoon of 4th March 1901.

Hosp. Asst. Shaik Lalbux Shaik Khudabux was detailed on cholera duty at the Barrier Gate from the 27th Nov. 1900.

Hosp. Asst. Shaik Jamal Shaik Hussein, attached to the Civil Hosp., Aden, has been placed on duty in connection with the disinfecting stove at Aden from 8th Jan. 1901.

Hosp. Asst. Keshavilal Motilal Mehta, in ch. Dispy. Pachora, has been directed to visit every afternoon the Annual Fair at Mahiji, from the 18th Jan. 1901, in addition to his own duties.

Tempy. Hosp. Asst. Amudaram Thudamal returned from leave and rejoined the Locomotive Dispy. at Sukkur on the 31st Dec. 1900.

Hosp. Asst. Baberbhai Chottabhai returned from leave and rejoined the Manora Dispy. on the 8th Jan. 1901.

Hosp. Asst. Lokumal Sirumal returned from leave on the 30th Dec. 1900, and joined the Mitti Dispy. on the 20th Jan. 1901.

Hosp. Asst. Dhondu Govind, in ch. Deccan Col. Dispy., Poona, is permitted to resign the service from the 16th Feb. 1901.

Civil Med. Pupil Mahomed Amir Khan, attached to the Civil Hosp., Sholapur, returned from leave and rejoined his appt. from the 21st Feb. 1901.

Hosp. Asst. Keshavilal Chotalal returned from leave, and received ch. of the Ilav Dispy. from the forenoon of the 21st February 1901.

Civil Med. Pupil Sudrudin Amirliya Kasi, attached to Civil Hosp., Surat, returned from leave and rejoined his appointment.

The undermentioned have been re-admitted into the Dept. as Tempy. Hosp. Assts. on a salary of Rs. 40 per month each with effect from the date specified against their names, and placed at the displ. of the Chairman, Municipality, Dhulia, for plague duty :—

Parmodari Motilal, 26th Feb. 1901; Gundu Yadneshwar, 25th Feb. 1901.

Tempy. Hosp. Asst. Balwant Krishna resigned the service with effect from the 26th Feb. 1901.

The services of the undermentioned Tempy. Hosp. Assts. have been dispensed with, with effect from the dates mentioned opposite their names :—

Parmodari Motilal, 22nd Jan.; Gundu Yadneshwar, 22nd Jan.; Luxumon Sakharan, 22nd Jan.; Parashram Mahadeo, 28th Feb.; Girdharilal Dalesukhran Vyas, 28th Feb.; Kastur Tricum, 27th May 1901.

The undermentioned have been re-admitted into the Dept. as Tempy. Hosp. Assts. on a salary of Rs. 40 per month each, and placed at the displ. of the Bany. Commr. for the Govt. of Bombay for famine duty :—

Ambalal Chimanlal Yajnik; Luxumon Sakharan.

Banyakhan Manwar Khan has been re-admitted into the Dept. as a Tempy. Hosp. Asst. on a salary of Rs. 40 per month, and is placed at the displ. of the Collector of Dharwar for cholera duty.

H. Mangeshrao has been admitted into the Dept. as a Tempy. Hosp. Asst. on a salary of Rs. 25 per month and placed in ch. of the Sindgi Dispy. with effect from the 1st Dec. 1900.

Tempy. Hosp. Asst. Dhirajram Surajram Bhatt resigned the service with effect from the 3rd Jan. 1901.

Hosp. Asst. Hanmantrao Chowan, attached to the Civil Hosp., Karwar, has been deputed for duty at the Gokarn Fair with effect from the 14th Feb. 1901.

Hosp. Asst. Mahomed Sayed was apptd. by the Asst. Collector of Ahmedabad to the ch. of the Hosp. at Hatti Sing's Wadi, and took ch. on the 31st July 1900.

N.-W. P. AND OUDH.

Civil Asst. Surgn. Nobin Chandra Chakravarti, Rai Bahadur, Lecturer on Practice of Medicine, Agra Med. School, and in ch. of Thomson Hosp., Agra, privilege leave for two months, with effect from the 3rd May 1901.

Civil Asst. Surgn. Rama Prasad Bagchi, Lecturer on Med. Jurisprudence and Morbid Anatomy, Agra Med. School, to hold charge of the duties of Lecturer on Practice of Medicine, Agra Medical School, and to be in ch. of Thomson Hosp., Agra, in addn. to his own duties, vice Senior Civil Asst. Surgn. Nobin Chandra Chakravarti, Rai Bahadur, granted leave.

Civil Asst. Surgn. Muhammad Azim, from the ch. of Sadar Disp., Bijnor, to plague duty at Benares.

Civil Asst. Surgn. Ganpat Rai, from plague inspection duty & Lakhnar in the Saharanpur dist., to plague duty at Benares.

Civil Asst. Surgn. Gobind Chandra Banerji, attached to the adar Disp., Unao, to be Deputy Supdt., Lunatic Asylum, Bareilly, as a tempy. measure.

Notification No. 3808, dated 18th April 1901, appointing Hosp. Asst. Ahmad Yar Khan to the ch. of Sadar Disp., Basti, is hereby cancelled.

Hosp. Asst. Ahmad Husain, attached to Harraiya Branch Disp., Basti dist., to ch. of Sadar Disp., Basti, as a tempy. measure.

Civil Asst. Surgn. Gauri Lal, attached to Sandila Disp., Jaidol dist., to plague duty, Benares.

Hosp. Asst. Hishsar Nath Sukul to the ch. of Sandila Disp., in the Jaidol dist., as a tempy. measure.

Asst. Surgn. Trishita Nath Singha, attached to the Sadar Disp., Mainpuri, to hold civil med. ch. of that dist., in addn. to his other duties, until further orders.

PUNJAB.

On being relieved of the tempy. ch. of the Palampur Disp., Kangra Dist., Hosp. Asst. Kahan Singh did gen. duty at the Dharamala Idar Disp. from the 6th to the 10th Jan. 1901.

On transfer from Jhang, Hosp. Asst. Bhawani Singh was apptd. to the Hamirpur Disp., Kangra Dist., from the 13th March 1901, relieving Hosp. Asst. Kahan Singh.

The following exchange of appts. was made in the Gujrat Dist. in the interests of the public service:—

Hosp. Asst. Ganda Ram from the Jalandpur to the Phalia Dist. from the 9th April 1901.

Hosp. Asst. Guru Das from the Phalia to the Jalandpur Disp., where he joined on the 13th April 1901.

On transfer from Hamirpur, Kangra Dist., Hosp. Asst. Kahan Singh was apptd. to the Jawalamukhi Disp. in the same dist. from the 22nd March 1901, relieving Hosp. Asst. Sant Ram.

Hosp. Asst. Sant Ram from the Jawalamukhi Disp., Kangra Dist., to the Gtrote Disp., Shahpur Dist., from the 1st April 1901, relieving Hosp. Asst. Luchman Das.

Hosp. Asst. Lachman Das, from the Gtrote Disp., Shahpur Dist., to the Jhelum Canal Disp., Bhalwal, in the same dist., which he joined on the 7th April 1901, relieving Hosp. Asst. Jamiat Rai, who was placed on gen. duty at Shahpur from the 14th April 1901.

Hosp. Asst. Gurmukh Rai, at present attached to the Western Jumna Canal Disp., Oru, Hissar Dist., did gen. duty at Hissar from the 12th to the 30th Dec. 1900.

Hosp. Asst. Kartar Singh, Kala Disp., Jhelum Dist., was deputed to the Ocho and Kattas Fairs held in that dist. from the 1st to the 13th April 1901.

Hosp. Asst. Amar Nath, Kallar Kahar Disp., Jhelum Dist., was transferred to the Barwala Disp., Hissar Dist., from the 8th April 1901, relieving Hosp. Asst. Wali Muhammad.

Hosp. Asst. Ramjus, Police Hosp., Dera Ghazi Khan, held ch. of the Sadr Disp., in addn. to his own duties, from the 15th March to the 8th April 1901, during the absence of Hosp. Asst. Barkat Ali at Lahore for exam.

Hosp. Asst. Barkat Ali resumed ch. of the Dera Ghazi Khan Sadr Disp. on the 9th April 1901.

On transfer from Jullundur, tempy. Asst. Surgn. Rahoo Nath Sahi, Shankara, was apptd. to the Civil Hosp., Gurdaspur, from the 18th April 1901, vice Rai Sahib Bhagwan Das, Senior Asst. Surgn.

Hosp. Asst. Chandu Lal, Sirhind Canal Disp., Harrigarh, Umballa Dist., was transferred, at his own expense, to the Sirhind Canal Disp., Lehal, in the same dist., from the 30th March 1901, relieving Hosp. Asst. Kamaluddin.

On transfer from Charsadda, Peshawar Dist., Hosp. Asst. Munshi Ram was apptd. to the N.W. Ry. Disp., Haranpur, which he joined on the 8th April 1901, relieving Hosp. Asst. Abdul Rashid.

Hosp. Asst. Karm Chand, doing gen. duty at Montgomery, to Leish, Dera Ismail Khan Dist., for tempy. ch. of that disty, from the 9th Jan. 1901, during the absence of Hosp. Asst. Harbhagwan at Lahore for exam.

On being relieved of the tempy. ch. of the Fazilka Disp., Ferozepore Dist., Hosp. Asst. Usman Ghani reverted to the ch. of the Ferozepore Police Hosp. on the 31st Jan. 1901, relieving Hosp. Asst. Iman ud-din, Jail Hosp., Ferozepore.

On relinquishing ch. of the Harka Kala Disp., Jullundur Dist., Hosp. Asst. Saifal Bahman was placed on plague duty in that dist. from the 27th April 1901.

Hosp. Asst. Nanak Chand, Dalhousie Disp., Gurdaspur Dist., has obtained leave on med. certificate for six months, and was relieved of his duties on the forenoon of the 27th April 1901 by Hosp. Asst. Lal Singh, transfdr. from Kalanaur in the same dist.

Hosp. Asst. Bhag Mal, Kathal Disp., Karnal Dist., was deputed for duty at the Pehowa Fair, in the same dist., from the 15th to the 22nd March 1901, during which period Hosp. Asst. Abbas Ali Shah, on transfer from Arnauli, Karnal Dist., held ch. of the Kathal Disp.

Hosp. Asst. Abbas Ali Shah reverted to the Arnauli Disp. on the 23rd March 1901.

On return from Lahore, after undergoing a professional exam., Hosp. Asst. Saif Ali resumed ch. of the Hangu Disp., Kohat Dist., on the 12th April 1901, relieving Hosp. Asst. Shankar Das.

On transfer from Lahore, Hosp. Asst. Feroze ud-din was apptd., as a tempy. arrangement, to the Kulachi Disp., Dera Ismail Khan District, from the 8th March 1901, during the absence of Hosp. Asst. Nawab Khan at Lahore for exam.

On return from Lahore, Hosp. Asst. Nawab Khan resumed ch. of the Kulachi Disp., Dera Ismail Khan Dist., on the 8th April 1901, relieving Hosp. Asst. Feroze ud-din placed on gen. duty at Dera Ismail Khan from the 12th April 1901.

On being relieved of the tempy. ch. of the Isa Khel Disp., Bannu Dist., Hosp. Asst. Ohaman Lal was placed on gen. duty at Bannu from the 1st March 1901.

Hosp. Asst. Ohaman Lal, doing gen. duty at Bannu, to the Kalabagh Disp., in the same dist., for gen. duty, which he joined on the 9th March 1901.

On transfer from Kala, Jhelum Dist., Hosp. Asst. Kartar Singh was apptd. to the Punjab Lunatic Asylum Hosp., Lahore, from the 30th April 1901, vice Hosp. Asst. Karm Chand, placed on gen. duty in the Lunatic Asylum from the same date.

On transfer from Mooltan, Hosp. Asst. Ali Ahmad was apptd. Travelling Hosp. Asst., N.W. Ry., Bhakkar Section, from the 11th March 1901, vice Hosp. Asst. M. Paul.

Hosp. Asst. Ram Ditta Mai, N.W. Ry. Hosp., Samasatta, has obtained one month's privilege leave, and was relieved of his duties on the 24th April 1901 by Hosp. Asst. M. Paul transfdr. from Mooltan.

BURMA.

Hosp. Asst. Maung Lu Gale relinquished ch. at the Civil Hosp., Paungde, Prome dist., on the 9th April 1901, and assumed ch. at the Lunatic Asylum, Rangoon, on the 17th April 1901.

Hosp. Asst. Behari Lal assumed ch. at the Gen. Hosp., Mandalay, on the 8th April 1901.

Hosp. Asst. Shyam Kishore Dey assumed ch. at the Gen. Hosp., Mandalay, on the 4th April 1901, as a supy.

Hosp. Asst. Bhola Ram assumed ch. at the Jail Hosp., Myaungmya, on the 14th April 1901.

Hosp. Asst. Paramanand, on arrival from India, assumed ch. at the Gen. Hosp., Rangoon, on the 14th April 1901, as a supy.

Hosp. Asst. Shaik Kader Bux relinquished ch. of his duties with Capt. Rainey's Escort at Lashio on the 12th April 1901, and assumed ch. at the Police Hosp., Lashio, on the 13th April 1901.

DOMESTIC OCCURRENCE.

[The charge for inserting a Domestic Occurrence is Rs. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

DEATH.

MOULD.—At Lucknow, on the 21st May, George Fallarton, the dearly loved infant son of Major and Mrs. G. T. Mould, I.M.S., aged 7 months and 12 days.

ORIGINAL ARTICLES.

ON THE VARIETIES AND TREATMENT OF PROLAPSE OF THE UTERUS AND VAGINA.*

By THOMAS WILSON, M.D., LOND., F.R.C.S., ENG.

WHEN a woman complains that her "womb is down," she does not necessarily mean what medical men understand by the term, but is merely translating her sensation into terms which have taken their origin from the mechanical system of uterine pathology, a system that has dominated gynecology from time to time, and that has been wont to ascribe all diseases peculiar to women to some alteration or other in the position of the uterus. All that the patient means by the expression is that she is conscious of some abnormal sensation in the pelvis or vulva. Exact diagnosis here, as in all other diseases of the female pelvic organs, must rest on careful objective physical examination, and the fascinating idea of a simple method or system that shall embrace all diseases is soon found to be a useless and misleading conceit.

In normal circumstances no part of the uterus or vagina is found to protrude through the orifice of the vagina into the vulva, even on straining. The object of the present communication is to deal with those cases in which such a protrusion has taken place. In different cases it may be observed that some parts not only of the uterus and vagina, but also of the neighbouring organs to the latter—the bladder and the ampullary portion of the rectum—have escaped from the interior of the pelvis. The different forms of the affection have much in common; they are frequently found to be combined, and transition forms between different groups are common; they are all of them due to similar pathological changes, and all are brought about by the same or similar causes. I propose, therefore, to use the term prolapse, which is the common name applied to these affections in its widest sense, as meaning the escape through the orifice of the vagina of some part or parts of the internal pelvic organs, of structures, in short, which are situated normally inside the pelvic cavity.

Taking the term prolapse in this general sense, the first fact of importance to be noted is the extreme frequency of the affections included under it. A little while ago I examined my notes of 5,221 patients, suffering from diseases peculiar to women, and found among them 304 cases, equal to 5.78 per cent., of prolapse. That is to say, about one patient in every 17 had some form or other of this affection.

If we now enquire into the circumstances under which prolapse is found, we are at once struck by the relation of the affection to the condition of parity. Of the 304 cases just mentioned, six only, or about two per cent., occurred in women who had not been pregnant. In 281 of the cases the number of pregnancies had been noted,

and of these 71, or fully 25 per cent., had had eleven or more pregnancies, while the average number to each case was 6.7, a number well above the average in all married women. From these figures it appears that prolapse occurs with infrequent exceptions in women who have borne children, and that it is especially common in those who have borne many children. It is further evident that the condition does not interfere with fertility; neither does it conduce to the premature termination of pregnancy, for the average number of 6.7 pregnancies to each patient is made up of 0.8 miscarriages to 5.9 labours at term, a proportion of about 1 to 7½, which is not far removed from that found in all fertile women.

The age on applying for treatment varied in the 304 cases from 20 to 76, three coming at the age of 20, and four at the ages of 70 and upwards, 85 patients, a little more than a quarter of the whole number, or 27.9 per cent., to be exact, were under the age of 35, while 139, equal to 45.6 per cent., or not much less than half the total, had attained the age of 45 and upwards.

The complete examination of a case of prolapse is conducted in the following manner: The patient lies on the left side, or on the back, with the knees drawn up; examination in the erect posture is sometimes recommended, and may possibly be found useful occasionally. The first step in the observation consists in a careful inspection of the vulva and perineum, and this is followed by palpation and bimanual examination, so that the condition, more especially with respect to dilatibility of the pelvic floor and of the orifice of the vagina, and the position, size, and mobility of the uterus, may be made out. The prolapse will nearly always have disappeared on the patient assuming the horizontal position. She is now made to bear down, so that the prolapse may be extruded; it may be necessary to assist the patient by pressure on the hypogastrium, or to pull on the cervix with a volsella. The parts implicated in the prolapse are now accurately made out, and while the extensive effort is in progress, the order in which the different structures come down is carefully noted. This order is the same as that in which the prolapse has gradually developed; it shows, so to speak, the history of the affection in a rapid sketch.

The next stage in the examination—the prolapse now being reproduced—is to feel what structures can be made out inside the tumour, observing, for instance, the thickness of the cervix, and whether the whole or only part of the uterus can be made out. The sound is then passed to determine the length and direction of the uterine cavity; the vesical sound shows to what extent the bladder is prolapsed, and finally the finger in the rectum ascertains whether that organ is implicated in the prolapse.

Procidentia, prolapse, and falling of the womb, the names usually applied to the cases we are considering, convey an entirely erroneous impression. The uterus does not fall in any sense of the word; it is pushed out of its place, extruded by the intra-abdominal pressure. Prolapse is, in fact, a hernia brought about by the same exciting causes as other herniæ, and due to the yielding

* A paper read at the Midland Medical Society, and reproduced from the *Birmingham Medical Review*.

of a particular part of the abdominal wall, the pelvic floor. Other herniæ—femoral, inguinal, or umbilical—are occasionally found to co-exist with the prolapse, as also is prolapse of the rectum (three times in 304 cases), another affection with a similar causation; but the frequent occurrence of prolapse in women affords a part at least of the explanation of the fact that the other kinds of herniæ are, as a whole, much less common in females than in males. Direct evidence can often be found of the action of the intra-abdominal pressure in bringing about prolapse, as, for instance, in cases of cystocele with hypertrophic elongation of the cervix. Here the pressure acts through the bladder and leads to elongation of the anterior vaginal wall, to eversion of the cervix, and sometimes to elongation of its anterior lip. The absurdity of calling the affection prolapse or falling would not so much matter, did not the wrong idea conveyed by the term sometimes lead to erroneous methods of treatment, as, for example, hysterectomy.

If we compare prolapse to other varieties of hernia, we find that there is a sac with a neck and contents. The neck of the sac is wide, and so we get only a mild degree of strangulation represented by more or less marked venous congestion of the extruded parts. The sac is formed by some part or the whole of the vaginal walls, and by the cervix uteri; the superficial coverings, the skin and subcutaneous fascia and fat are wanting. The layers in the wall of the sac are from without inwards, the wall of the vagina, the pelvic connective tissue, and the peritoneum. The contents of the hernia may include the body of the uterus, part of the bladder, and of the ampulla of the rectum, and sometimes intestine and omentum.

Cases of prolapse may be classified according to the degree or extent to which the affection has attained, and also according to the organ which takes the lead in the process. The pelvic floor is rarely equally weakened as a whole, and where, as is commonly the case, one portion of it is especially impaired, either the uterus, the vagina, the bladder, or the rectum first comes down. The cases may be divided, in the first place, into complete, where the whole of the uterus and vagina are prolapsed, and incomplete; and it is convenient to divide the latter class again into an earlier or less advanced and into a more advanced stage. In my notes, there are in 260 cases sufficient details to allow of classification under these heads. Of the 260 cases, in 12 there was complete prolapse, and of the other 248 cases, 59 belonged to the advanced and 189 to the earlier stage of incomplete prolapse.

Taking, first, the less advanced stage of incomplete prolapse, the 189 cases are found to group themselves into varieties, according to the part chiefly implicated. In the first of these varieties, comprising 51 cases, there was protrusion of the lower end of one or both vaginal walls; most commonly (37 cases) both walls were everted; next most commonly (11 cases) the anterior wall; and rarely (3 cases) the posterior wall alone. This condition of eversion of the vagina appears to depend partly on a patulous condition of the vulva, either permanent or easily brought about by straining, and partly on swelling

or relaxation of the vaginal wall themselves, due sometimes to pregnancy, but most commonly to subinvolution and its effects.

In the second group of 34 early cases, the cervix protruded at the vulva, the uterus being then always retroverted, and the upper end of the vagina drawn down or inverted by the descending cervix. The special features in this group were the presence of a stiff and heavy retroverted uterus, or of elongation of the vaginal portion of the cervix. Marked elongation of the vaginal cervix was present in 16 of the cases, and among these were four out of the six cases of prolapse observed in nulliparæ, and four other patients who had each borne only one child; in 7 of the patients there were five children or less. In some of the cases the elongation was probably primary and had aided in bringing about prolapse; but I believe that in several of the others the prolapse was primary and the cervical elongation secondary.

In addition to the 85 cases just mentioned, in 31 others eversion of the lower end of the vagina co-existed with prolapse of the retroverted uterus; these cases form, therefore, a mixed group, partaking of the characters of both the varieties above referred to.

The next groups of cases of prolapse depend upon the extrusion of the neighbouring organs to the vagina, *viz.*, the bladder and rectum; in 47 cases there was protrusion of the bladder or cystocele, and in 12 the ampulla of the rectum was implicated, forming rectocele. Both these conditions depend essentially on actual or potential gaping of the vulva; in rectocele there is also found almost invariably a very short and thin perineum, the perineal body having been torn down to and partly through the sphincter. The anterior wall of the anal canal is thus very thin, but the sphincter remains, nevertheless, functionally capable. With such a perineum, when the patient is upright, a portion of the rectal ampulla projects forward in front of the vertical level of the anal canal, and straining efforts cause the contents, solid or gaseous, of the rectum to push the projecting portion of the ampulla through the vulvar orifice, carrying the lower part of the posterior vaginal wall in front of it. In one case I observed a small scybala which constantly came down in the pouch of a rectocele when the patient strained, and this appeared to be very effectual in increasing the protrusion.

While thus, by offering a point of resistance to straining efforts, a thin but functionally capable perineum is a chief factor in the production of rectocele, complete rupture of the perineum, by doing away with this point of resistance, at the same time tends to prevent the evil effects of straining at stool, one of the chief factors in the causation of prolapse. Thus, complete rupture of the perineum co-existing with prolapse was observed in only five out of my 304 cases.

The groups of cases that have now been mentioned depend for the most part upon alterations in the connective tissues supplying the viscera in their normal positions on the pelvic floor, or on some localised or partial affection of the floor itself. In another group of 14 cases, the affection appeared to consist essentially in great

dilatability of the whole pelvic floor. In the most marked of these cases, when the patient was at rest, the floor appeared to be normal, but it was found to be capable of being stretched either by the observer, or by bearing-down efforts of the patient to a sufficient extent to have transmitted a foetal head; when the floor was thus distended, the vulvar and anal apertures were stretched open just as in the second stage of labour. In such cases the anterior vaginal wall is pushed through the vulvar aperture by the extrusion of the bladder, so that cases belonging to this class gradually shade off into the cystocele group.

In the examination of the early cases of incomplete prolapse, it has appeared that eversion of the vagina is the most common variety, that primary descent of the uterus comes next, then cystocele, and finally rectocele is the least common.

In the advanced class of the incomplete variety of prolapse, I place 54 cases of cystocele and five of rectocele, all accompanied by hypertrophic elongation of the cervix. The cavity of the uterus in these cases varied from $3\frac{1}{2}$ inches to $6\frac{1}{2}$ inches in length, the measurement in by far the largest number of cases lying between $4\frac{1}{2}$ inches and $5\frac{1}{2}$ inches. It is an interesting fact, and one that has not, so far as I am aware, been satisfactorily explained, that in cases of cystocele and rectocele, so long as the cervix remains within the pelvis, there is no elongation of the uterine cavity, whereas so soon as the cervix is found to protrude through the orifice of the vagina, there is found to be marked elongation. It is also interesting to note that the extent of the elongation varies between certain definite limits. The supra-vaginal cervix is usually described as being the part affected in this form of elongation, but in a case of prolapse, where I removed the heavy and large uterus together with the diseased appendages, I found that although the cervix was relatively more lengthened, yet the body was also decidedly elongated.

The sequence of events in a case of cystocele with hypertrophic elongation of the cervix is first cystocele, the bladder being the agent that is used to thrust forward the anterior vaginal wall, as may be proved by observing that this vaginal wall is actually elongated. The tension is transmitted through the anterior vaginal wall to the anterior lip of the cervix, which becomes everted and may be elongated; the whole cervix is thus pulled downwards, but its descent is opposed by its transverse ligaments and by the utero-sacral folds. These structures gradually yield, and the whole uterus then descends and drags with it the posterior vaginal wall from above downwards. In rectocele with hypertrophic elongation a similar series of events takes place in the inverse order.

The elongation in these cases specially affects the supra-vaginal cervix, and is due in part to intermittent tension on the cervix by the pull of the vaginal wall, opposed by the pull of the ligaments of the cervix above mentioned. The hypertrophy is further partly caused by interference with venous return due chiefly to traction on the connective tissue in which the vessels lie, partly also, no doubt, to the constriction of the protruded cervix by the encircling vulva. The thickness of the elongated

cervix varies much in different cases; before the menopause it is as thick as two, three or more fingers; when senile atrophy has occurred, the cervix, though still elongated, is frequently found to be thinner than the little finger.

There remain now for consideration cases of total prolapse, by which is meant complete prolapse of the uterus with or without complete prolapse of the vagina. This forms the end stage of all the varieties of prolapse, and a case belonging to any of the groups already described may become complete, if only the exciting causes act with sufficient force, or, what comes to the same thing, if they act for a sufficient length of time. In my 260 cases are included only 12 of total prolapse. In some of these it was impossible for various reasons to discern the exact march of events, but in others it was easy to observe the reproduction in a few moments of the exact order of events that had taken months or years to develop. In different cases the complete prolapse had supervened on eversion of the vagina, on retroversion of the uterus with inversion of the vagina, and on cystocele. As a rule, in these cases the uterine body is found to be retroverted inside the sac of the prolapse, but in two of my series it was anteverted. The patients had usually worn pessaries for a long time, but one of them had never worn one. One of the patients had a flat pelvis, the diagonal conjugate measuring only $3\frac{1}{2}$ inches. Two-thirds of the patients were 45 years of age and upwards. The number of children was not large; only one patient had had more than ten children, while five out of the twelve had borne four or less; the average number, 5.4 in each patient, is decidedly less than the average in cases of prolapse generally. In two of the women there had been only one pregnancy; in one, aged 60, 30 years before the patient was seen; in the other, aged 68, the one child was born 40 years previously, the womb had been outside for 30 years, and the patient had worn a ZWANKE pessary for 20 years. In contrast to these two instances, where the total prolapse was the end stage of a long existing affection in old women, may be mentioned the case of a woman aged 34, who had borne only two children, and whose womb had been outside for four years.

The course of prolapse varies enormously in different cases, according to the amount of damage that has been done to the supporting structures of the organs concerned, and more especially according to the social condition of the patient. The tendency of all established cases is for gradual increase to take place until the prolapse is complete. Where all the conditions are favourable, total prolapse may be attained in a few months or a year or two; while in other circumstances this stage may only be reached after 40 or more years, or it may never be reached at all. As we have seen, prolapse is rarely total, and the immense majority of the cases become arrested in some one or other of the earlier stages.

Prolapse rarely kills, but it does its full share in adding to the sum of human inconvenience and suffering. Fortunately the means we now have at our disposal enable us very materially to reduce the pains and discomforts of this very common affection.

From the very earliest days there has been no lack of methods of treatment of the diseases we are considering. Thousands of years ago the patient who had the misfortune to, so to speak, "drop" her womb to the outside, was sometimes punished by being bound upon a shutter and turned upside down; she was in this position shaken until the errant organ returned to its proper resting place inside the body, and thereupon the unfortunate woman was made to lie in bed on her back with her knees crossed for the space of six weeks or thereabouts. A still more drastic and equally ineffectual method, that of cutting off what is mistaken for the offending member, is sometimes practised in our own days. We still seem very far from universal agreement as to the correct management of the affection. Such agreement must be sought by a careful and unbiassed study of every case, by comparing our observations and opinions one with another, and by thus endeavouring to gain a correct appreciation of the essential nature of the process; by pursuing such a course, we shall be enabled to discover correct principles of treatment, and on these to base scientific methods.

The preventive treatment of prolapse is of the very highest importance, and depends upon the correct management of the patient during pregnancy and labour, and for two or three months afterwards. Special attention ought to be paid to the injuries and tears of the perineum, vagina, and cervix during labour, and prompt suturing should be done when necessary. The preventive treatment of prolapse is the same as that of puerperal retroversion, and has been described by me in a paper printed in the *Birmingham Medical Review* for January 1900.

When we find that there is an early condition of prolapse, we have to bear in mind that the best time to treat it is at the very beginning, and we should impress upon the woman the importance of being careful and of persevering in the use of proper remedies. In the earliest stages the correct treatment of the affliction is as effectual as it is simple. The forces leading to extrusion of the contents must be combated by abstinence from heavy exertion, such as carrying a baby about; by the relief of any cough that may be present; and by attention to the easy and regular action of the bowels. The supports of the organs should be strengthened by gentle exercise, such as walking, in order to call the muscles of the pelvic floor into action; by astringent injections; and by glycerine tampons. Ergot or hydrastis, continued for two or three months, has often appeared to me to be useful in addition to the above means. If at this stage a vulcanite Hodge's pessary can be retained, I do not think it does any harm, but its place can be better supplied by the use of glycerine tampons.

The treatment of prolapse is often supposed to be synonymous with the use of a ring pessary, an appliance which fills up a place in the gynecological armamentarium that may be better supplied when it has been made empty. When a ring pessary is introduced into the vagina and happens for the time to keep the prolapsed parts out of sight, the patient, and sometimes the doctor, feels satisfied that all is now well. The pessary being

made of india-rubber is, however, not long, as a rule, in setting up a new affection proper to itself, and is apt to become a stinking abomination, which a self-respecting scavenger might with perfect propriety refuse to handle. The "ring vaginitis" thus set up not only offends the nostrils; it exerts an injurious influence on the nutrition of the surrounding tissues, the very parts that require to be strengthened if the prolapse is not to be allowed to become aggravated. Hence the prolapse, which naturally tends to increase, is made to do so more rapidly by the means that are employed in its treatment.

The next most common means employed in the treatment of prolapse is perhaps ZWANKE'S butterfly pessary, which has been proved to be one of the most dangerous foreign bodies that can be introduced into the vagina. It is true that this instrument sometimes cures the prolapse by setting up ulceration and sloughing followed by cicatrization and contraction of the tissues of the pelvic floor; but this can hardly be considered a serious argument in its favour. All the other forms, and their name is legion, of pessaries that are used for prolapse seem to me to be open to similar strong objections to those that have just been urged against the rubber ring and ZWANKE'S. I am indeed strongly of opinion, after careful and prolonged observation, that the entire abolition of the pessary treatment of prolapse would be a decided gain to suffering women.

The routine palliative local treatment that I have gradually been led to adopt in those established cases of prolapse that would ordinarily be deemed suitable for pessary treatment, in cases, that is, where the opening of the vagina is not too large to prevent the retention of a foreign body, consists in the use of glycerine tampons which the patient is carefully instructed how to make and introduce for herself every morning. This method, besides affording the necessary support, has two conspicuous advantages over the pessary treatment; in the first place, it is cleanly; and in the second, it exerts on the tissues a bracing and tonic action which helps to prevent the further progress of the prolapse. It is necessary to warn the patients that at first the glycerine plugs may cause a considerable watery discharge, but this source of discomfort soon becomes much lessened. The beneficial effect may be enhanced in some cases by the addition to the tampons of some astringent, such as alum or sulphate of zinc.

In many cases of prolapse the treatment by tampons is all that is required locally. Where it fails, the correct indication appears to me to be to support the pelvic floor on the outside, by a perineal pad, just as one supports any other hernia by a truss. The perineal pad consists of a hollow india-rubber bag of elongated oval shape, and is attached by leathern straps to a waistband. In women who are not cleanly, the pad may in use become somewhat offensive to sight and smell, but it may at least be claimed that the dirt accumulates outside the body, and not inside, as is the case with vaginal pessaries.

When prolapse has become firmly established, and the means just described are ineffectual or cannot be borne, operative treatment is, in my opinion, clearly

indicated; and here it may be observed that in the early stages of the affection a simple and slight operation will probably be sufficient, whereas, if the case is allowed to drift on, a long and complicated series of operations may be necessary. The operations that I have found useful in my own work comprise anterior colporrhaphy by the oval method; posterior colporrhaphy by the triangular denudation method; perineorrhaphy either by flap splitting or by denudation, according to the individual case; amputation of the cervix; and anterior fixation of the fundus of the uterus to the vesical peritoneum in child-bearing women, to the vagina in women past the menopause. I have once, eight years ago, done fixation by the abdominal method for prolapse; but although the result was satisfactory, I am of opinion that this method presents no advantages, and several disadvantages when compared with the methods performed through the vagina. The operation of shortening the round ligaments, whatever its merits, in cases of backward displacement, appears to me to deserve no place in the treatment of prolapse.

The main point in the operative treatment of prolapse appears to me to be the selection of the methods that are most suitable in each individual case; what is good in one variety of prolapse, may be of no value in another; we must make the punishment fit the crime. Commonly, in old cases, several operations are required, and there is no reason that I can see why these should be done at different sittings. If the patient is not strong enough to stand the necessary combination of operations, in all probability no operations at all will be undertaken. The operations that I have found to be most appropriate in the different varieties of prolapse are as follow:—In eversion of the lower end of both vaginal walls, anterior colporrhaphy and posterior colpo-perineorrhaphy. In elongation of the vaginal cervix with prolapse, amputation of the redundant portion of the cervix and vesico-fixation; in two such cases, one in my own practice and one from another hospital, vaginal fixation was first done, and was followed by a prompt return of the prolapse, so that amputation of the cervix was afterwards required. In cystocele, perineorrhaphy, with sometimes in addition anterior colporrhaphy, is indicated; where there is elongation of the supra-vaginal cervix, amputation of the cervix is required along with these operations. In rectocele, perineorrhaphy is necessary, usually in association with posterior colporrhaphy. Cases of complete prolapse require to be treated on their merits; sometimes perineorrhaphy is sufficient to relieve the condition.

After every operation for prolapse the patient should wear a perineal pad for at least a year, just as she wears an abdominal belt to support the scar of an abdominal section. In the cases of dilatable pelvic floor the pad is the only treatment that offers a chance of relief. In one of my cases I extended the perineum well forward with much success as far as the healing of the operation wound was concerned, but without the slightest benefit to the patient's condition; and I have seen several failures from the same cause after operation by other surgeons.

By the proper adaptation of the operations I have enumerated to the needs of the individual case, I believe

the radical treatment of prolapse may be expected to be as successful as that of hernia elsewhere. But these operations will be less and less called for in proportion as the treatment of labour and the puerperium is carefully and skilfully attended to, and in proportion as the early stages of prolapse are looked for and treated on correct principles from the earliest possible moment.

DIAGNOSIS OF CALCULOUS DISEASE OF THE KIDNEYS, URETERS, AND BLADDER BY THE RONTGEN METHOD.*

BY CHARLES LESTER LEONARD, A.M., M.D.,
Philadelphia.

THE development which has lately taken place in methods of physical diagnosis greatly facilitates the differential diagnosis of renal disease. Pathologic processes in other organs can be readily excluded, while the differentiation is being rapidly made between the various forms of renal disease that stimulate each other very closely in their symptomatology.

The centrifuge, the segregator, the ureteral catheter, and the cystoscope are factors that have aided greatly in this development. The separate urines can be collected, and a chemical and microscopic analysis be immediately made of each specimen. When these are combined with a thorough cystoscopic examination, the region of the lesion can be very closely determined, and the functional efficiency of each kidney, and the extent of its involvement in the pathologic process, estimated. Bacteriologic examinations are valuable adjuncts, but as yet the positive results are the only ones upon which much dependence can be placed.

Each of these methods has its peculiar advantages and adaptations, each has its disadvantages. They form the parts of a whole, and are each of intrinsic value and are complementary of the others. No one of these methods is as valuable by itself as when supplemented by the others. All have their appropriate place in the diagnosis of renal diseases and in estimating the amount of injury that has been done to the kidney.

In suspected calculus disease the analysis of the separate urines should always be made when possible. The cystoscopic examination of the bladder is also very valuable. Lesions of the bladder can be detected or eliminated. The character, quantity and regularity of the urinary flow can be observed. When calculi have been found in the kidney or ureter by other methods, the cystoscopic examination will determine whether the impaction produces complete or partial anuria on that side. This can also be determined by catheterising the ureter, by using the segregator, or can be inferred from the presence or absence of a hydronephrosis, if the condition has been present for some time. The persistence of pain, or the recurrence of attacks, also show that the urinary flow has not been completely obstructed.

Next to the Röntgen method, the ureteral catheter or sound has given the most reliable information regarding

* Read before the Surgical Section of the American Medical Association, Atlantic City, and reproduced from the *Philadelphia Medical Journal*.

calculi. ALBAKRAH has had considerable success in employing it, but has recorded his failure and disbelief in its accuracy, although appreciating its value. KELLY has successfully detected calculi in this way, and by coating the tip of the catheter with wax, has observed the scratches which the calculi produce. This method is valuable in confirming the results otherwise obtained, and should be employed wherever feasible. It cannot be considered absolutely accurate, as calculi imbedded or encysted in the kidney would not be touched. It is particularly adaptable to ureteral calculi, and besides confirming other observations, may serve to dislodge a small calculus or push it up into the pelvis of the kidney.

BIGELOW'S evacuator is very serviceable in finding these small calculi that have passed into the bladder, but no further. An examination with it should always precede operation for the removal of a small ureteral calculus that has been detected by the Röntgen method, especially if any interval intervenes between its detection and the operation, or if massage has been employed in the attempt to dislodge it. This is equally true of all operations for the removal of foreign bodies. Operation must follow immediately after the localisation, or the localisation must be repeated. Immobilisation is always essential during the interval.

The Röntgen method of detecting or excluding calculi from the kidneys and ureters has proved itself to be absolutely accurate, when applied with the requisite technique. The errors which have been noted were all due to defective technique or inexperience in reading the negatives. The absolute negative as well as the positive diagnosis of calculous disease is feasible. It depends solely upon the production of negatives, having detailed shadows of tissues less opaque than the least opaque calculus. When such a negative is obtained and correctly read, no error can be made.

Twenty cases in which calculi of all sizes and chemical composition have been detected in the kidneys or ureter attest its value. Among these are six in which calculi were found in the ureter; four in which multiple calculi were found; and two in which calculi were found on both sides. Not only have these positive diagnoses been confirmed by the passage of calculi, by operation, and by post-mortem examination, but the negative diagnoses have also been found correct in every case but one in which the error was due to defective technique. The majority of these cases have been previously reported (*Annals of Surgery*, February 1900) in conjunction with a description of the technique employed.

The advantages which this method possesses are its mathematical accuracy and comprehensiveness. The equal value of the negative and positive diagnoses. The ability to detect calculi in their incipiency before serious injury has been done to the functional efficiency of the kidney, and when the freedom from infection makes an aseptic operation possible. The dangers that threaten when a small quiescent calculus is present can thus be avoided, as well as the dangers of operating upon the wrong kidney; upon one without knowing the other is the seat of calculus; or of leaving a calculus behind by an incomplete operation. The operative interference is

localised and limited to a very small area, facilitating the operation and avoiding needless injury and traumatism to other portions of the urinary tract. Thus a calculus weighing 42 grains was located in the upper pole of the kidney and removed through a small incision directly down upon it that barely admitted a finger. A small ureteral calculus was located just within the pelvic brim, where it was found by bimanual palpation. It was removed by a transperitoneal uretero-lithotomy, and proved to be a uric-acid calculus of the mulberry type, which weighed 2½ grains. A second ureteral calculus was removed per vaginam. A ureteral catheter was introduced, and the vaginal wound packed; both packing and catheter were withdrawn on the third day with perfect healing. This ureteral calculus was apparently a phosphate stone and weighed 27 grains. A large calculus of the same character was removed from this patient's other kidney. It was broken and could not be weighed. It was phosphatic in composition, and measured over two inches in length. On the side where the ureteral calculus was found there was a large hydronephrosis; on the other a pyonephrosis. Other cases have been previously reported where encysted calculi were detected, and where multiple calculi were removed and the completeness of the operation assured.

Such advantages clearly demonstrate the superiority of this method over exploratory nephrotomy or any other method of diagnosis. It is free from all danger and inconvenience, and is more accurate. The absolute negative diagnosis renders treatment rational that would otherwise be hazardous. The danger from sudden impaction and anuria is always present so long as a calculus remains in the kidney, the renal pelvis, its calyces or the ureter. It has also been shown that bacterial infection is far more liable to take place in a kidney that is the seat of calculous disease, or where the ureter is partially obstructed.

The detection and accurate localisation of the calculus, in cases of unilateral or complete anuria due to calculous disease, is of the utmost importance in directing and limiting the operative intervention. Complete anuria is readily recognised, but the localisation of the seat of obstruction, although of the greatest moment, has hitherto been a most difficult problem, uncertain of a correct solution.

Unilateral anuria can, of course, be easily recognised by employing the segregator, the ureteral catheter, or the cystoscope. This condition has, however, been frequently overlooked, and the cessation of symptoms attributed to the passage of or dissolving of the calculus and the credit given to the medicinal agent employed. The symptomatology of the processes is identical, but their pathology and results are vastly different. One leads to the recovery of full functional activity; the other to atrophy and degeneration of the kidney with complete loss of function. Post-mortem examinations and the results of operation upon the other kidney under these conditions show how frequently they escape detection.

Many of the recoveries attributed to this or that medicinal agent are founded on an incorrect diagnosis of the presence of calculus. Many others are in reality

impactions, with the establishment of unilateral anuria and the subsequent destruction of the kidney. In others, the calculus becomes quiescent and the trouble recurs at a later period, after infection has taken place and greater injury has been done to the kidney.

With the possibility of such grave dangers as these in view, unless a calculus has been passed and recognised, or can be found in the bladder by a BIGELOW'S evacuator, or by some other means, a patient who has suffered an attack of renal colic should be examined for calculus. The question of unilateral anuria can be settled by the segregator, or the ureteral catheter, but calculus can only be detected or excluded with certainty by the Röntgen method properly employed.

The patient should be given the advantages of these methods of examination before non-operative treatment is decided upon. Without them he is exposed to the immediate danger of the loss of one kidney, and the future dangers that surround the presence of a quiescent calculus in the kidney. The advantages that are derived from early diagnosis and operation should never be forgotten. This early diagnosis can be made in all of these cases as soon as a suspicion points to the presence of a calculus.

A glance at the symptomatology of diseases that may be mistaken for calculus shows that it is impossible to deduce from them conclusions that would even exclude conditions purely outside of the kidney. A differentiation between the intranephritic pathologic processes, and including those involving the ureters, requires all the aids which modern methods of physical diagnosis can command, and even then has its limitations.

The variations in symptomatology, illustrated by the 20 cases in which calculi have been found in the kidneys and ureters, are very great. In some the typical renal colic was present, followed by vomiting or a chill, while the results of the urinalysis were typical; in others, one or other symptom was wanting; the pain was a dull diffused ache in the lumbar region, and the urine was frequently normal, except for a microscopic trace of blood; in others an indefinite lumbar pain, a persistent trace of albumin, and occasionally a few pus-cells were all that directed suspicion to the kidney.

The two cases that belong to this latter group are of particular interest, as they illustrate cases that might have been readily mistaken for chronic nephritis. In fact one had been treated as such at various periods during the twenty years in which the albuminuria had persisted. In neither case had there ever been any characteristic symptoms of calculous nephritis. There was an early history of a trace of blood in each case, but it did not excite suspicion, nor had it ever been noted since.

Such a marked range of symptoms shows how readily cases of calculous disease may be mistaken for other conditions and escape detection. Many cases that are apparently the result of entirely different pathologic processes will be proved to be calculous nephritis, if they are examined by the light of this new method. The negative diagnosis in such cases would render other than operative treatment rational, while the positive furnishes the indication for operation with all its advantages. Thus a harmless examination will make relief possible at an early period, in cases that would otherwise have drifted on until a more critical condition demanded intervention,

and yet rendered it more hazardous. Examples like these accentuate the value of the negative diagnosis and show its utility, even in cases where a negative diagnosis by other methods is apparently accurate.

The eight cases of operation in which a negative diagnosis for calculus had been given show how close is the similarity in symptomatology that so often demands operation when no calculus is present. The Röntgen method determines with absolute accuracy the presence or absence of all calculi in every case in which a satisfactory negative can be secured, if that negative is correctly read. It does not preclude the employment of exploratory nephrotomy, as there are many conditions that simulate calculous disease, that can be differentiated or relieved in no other way. It does, however, preclude by a negative diagnosis exploratory nephrolithotomy, or the actual incision into the kidney in the search for calculi. Unless some macroscopic pathologic process clearly indicates the necessity for incision, it should be avoided. On the other hand, a number of cases have shown the value of the Röntgen diagnosis in detecting calculi that the exploratory operation would have missed, since it was the only indication for incising a kidney that appeared normal.

The mechanical accuracy of this method is very great. Errors can creep in through faulty technique or lack of skill in reading the negatives. Where, however, the negative secured fulfils the requisite conditions, the experienced eye can detect or exclude all calculi. In some cases it may be as yet impossible to secure negatives with such detail, as in very corpulent or muscular subjects. The majority of failures and errors reported should, however, be attributed to a lack of skill or a faulty technique on the part of the operator, and not to any inaccuracy in the method, or the inability of the Röntgen-rays to produce accurate negative or positive diagnosis. This is equally true of the errors that have been frequently attributed to this method of diagnosis in dealing with other surgical problems. The defects are not in the method, but in its inefficient and ignorant employment by those deficient in technique. These elements should rapidly decrease as the sources of error are recognised and the technique of the method is developed. They are common to all methods depending upon the acquirement of skill in making observations with accurate instruments.

Although the detection of vesical calculi is generally very easy by the ordinary methods employed, there are applications of the Röntgen method that are very valuable. These have been illustrated by the detection of encysted and multiple calculi, the determination of the presence of calculus in conjunction with an enlarged prostate, or where there is any other mechanical hindrance to the proper employment of the vesical sound.

There are other applications of this method in the detection of pathologic processes that involve the kidneys and bladder that will develop by the future progress in the differentiation of tissues. They have only been indicated by the negatives that show the outline of the normal or hydronephrotic kidney or of the enlarged prostate. The perfection of a technique that will render their differentiation positive and accurate in all cases will greatly increase the value of this method in renal diagnosis.

HOW TO AVOID PRICKLY HEAT.*

By MAJOR R. R. H. MOORE, M. D., R. A. M. C.,
Barrackpore, Bengal.

IN May 1899 I began to use coconut oil gently rubbed into the skin to allay the irritation of prickly heat. I used it very cautiously at first, but soon found it both pleasant and inoffensive.

* Reproduced from the *Journal of Tropical Medicine*.

A couple of months afterwards I read Mr. FREDERICK PEARSE's excellent paper on prickly heat in the June 1899 number of the *Journal of Tropical Medicine*. I was thereby encouraged to use the oil more extensively, and to abandon the use of soap in the bath. Since then I have been able to keep free from prickly heat, though living in the steamy climate of Lower Bengal. I have also obtained a number of converts to this treatment, many of whom speak of it most enthusiastically. I publish this in the hopes that others may be led to follow our example.

There is, however, a strong prejudice against renouncing such a national institution as soap, and a still stronger one against adopting what many are pleased to term the filthy native habit of anointing one's skin with oil. Like other prejudices, these are without reasonable foundation.

It is quite possible to clean oneself in the bath without the assistance of soap, as Mr. PEARSE says: "Soap is only required when bathing is neglected." In hot climates this is surely the case, where, as a rule, baths are taken twice a day.

At first, when soap is given up, the pleasure and satisfaction of the bath is somewhat diminished: the hand no longer glides smoothly over the body in a creamy lather: it sticks unpleasantly, the contact is distasteful, and the epidermis peels off visibly. This discomfort is only temporary; after a time the skin becomes firm and glossy and the hand glides over it as before, with the difference that the smoothness is now the smoothness of a firm, healthy skin, not the meretricious smoothness of an injurious compound, the antecedents of which are doubtful.

The oil recommended by Mr. PEARSE is a mixture of almond oil and lanoline. I have not tried it. I have found coconut oil satisfactory in every way. It is a clean, non-greasy oil, which seems specially adapted for the skin, as the natives found out centuries ago. It has the further great advantage of being readily procured in any native bazar, and is exceedingly cheap.

It is difficult to get Europeans, in India at least, to believe that coconut oil is not a filthy-smelling product, or that it can be rubbed into the skin without giving rise to any unpleasant aroma. Such, however, is the fact, as I have proved in many instances.

Fresh coconut oil has only a very faint smell; when rubbed into the skin, this disappears almost, if not quite, entirely. If kept too long, however, the oil turns rancid, and then it stinks abominably. The smell of the rancid oil may frequently be detected amongst the lower classes of the natives. When such is the case, the smell comes from their clothes, which are saturated with the oil and not washed. This, however, can no more be used as an argument against its use than it can against eating butter.

The fear of the oil spoiling one's clothes is also groundless. The skin absorbs the oil; it is not like oiling a piece of metal; after two or three minutes' gentle rubbing the oil disappears, and you can rub yourself with a towel without any coming off, unless of course a great excess has been applied, then the towel will remove the excess.

The best time to put it on is, I think, before going out for the evening's exercise; strip, pour a little of the oil into the palm of the hand, and rub it over the body from the neck to the ankles, get your servant to do your back. It is not advisable to use sponge or rag, as they are not easily cleansed and so become offensive. When done, rinse your hands in plain water and dry. If necessary, they can then be washed with soap.

When you come in to dress for dinner, take a bath, using no soap. This is the time when you will appreciate the benefits of the oil. You find you can dry yourself perfectly; the skin is not, as is usually the case in steamy

climates, sodden and clammy; it is, on the contrary, firm and glossy; you can pass your hand over it with a sense of pleasure; you have also a pleasant sense of coolness, and you can proceed to dress without breaking out into fresh perspiration. There is no reason why the oil should not be used twice a day if necessary, about a tablespoonful each time.

I do not think that the application of the oil interferes with the activity of the sweat glands. I am not sensible of any diminution of perspiration; I take exercise as freely as ever, and regard the admonition to limit one's drinks as a counsel of perfection not likely to be followed after hard exercise in Lower Bengal. From this I argue that the excessive activity of the sweat glands is not the direct cause of prickly heat. In this I agree with Mr. PEARSE. He, however, is inclined to regard the affection as a seborrhoea. He says: "I look upon prickly heat as an acute seborrhoea." In proof of this he relies chiefly upon the distribution of the eruption.

But what sets up the seborrhoea? Mr. PEARSE says: "Soap removes sebaceous matter from the surface of the skin . . . the sebaceous glands are thus unduly stimulated to produce more secretion, while at the same time the excessive perspiration is also irritating them to lubricate the surface." As soap is freely used in cold climates without producing seborrhoea, it is difficult to understand why it should do so in hot.

Mr. PEARSE evidently considers excessive perspiration an important element, for he says: "Anything which excites perspiration 'brings up' the rash and aggravates all the symptoms;" and again: "It seems that the prolonged sweating excites at the same time the activity of the sebaceous glands."

The latter statement is the important one, and it appears to be open to doubt; it appears to have been invented to suit Mr. PEARSE'S theory. It is stated in an indefinite way and no proof of its accuracy is given. That either soap or excessive perspiration can produce an acute seborrhoea remains to be proved.

Though I agree with Mr. PEARSE as to the proper method of treating prickly heat, I differ as to its causation. I believe it to be an irritation of the skin produced by the constant bath of perspiration in which the body is kept in hot, muggy climates. This brings it into line with intertrigo and the so-called "flannel rash"—eruptions caused by irritating secretions from the body.

As for its distribution, I hold it to be largely accidental; influenced to a great extent by clothes, their nature, amount, and manner of being worn, and also by the obesity of the individual. The places it selects are those where perspiration tends most to collect.

The skin is naturally intolerant of prolonged exposure to moisture, nature's protective greasy coat offers but a feeble resistance, and in steamy climates it rapidly becomes sodden. We increase the evil by removing the greasy coat by the use of soap, and keep up a constant vapour bath by means of flannels. The result might readily be anticipated.

In climates where the diurnal ranges of temperature are considerable, flannel no doubt is useful; but in Lower Bengal in the rains, when the temperature varies but little, and the atmosphere is saturated with moisture, so that evaporation is reduced to a minimum, they do more harm than good. The cholera belt is a sure producer of prickly heat under these conditions.

If this be true, the rational treatment of prickly heat is (1) to preserve nature's protective coat by abandoning the use of soap, and (2) to reinforce it when necessary by some lubricant. By adopting these simple means, many of us in Barrackpore have saved ourselves from the inflictions of prickly heat during the hot seasons.

A MIRROR OF PRACTICE.

REPORT OF A CASE OF RABIES.*

By FREDERICK KRAUSS, M.D.,

Philadelphia.

Six weeks previous to the attack, Ida Z., aged eight years, fondled a sick dog, which her elder sister brought in from the street, because it seemed to be suffering. Suddenly, without any warning, the dog bit her in the upper posterior border of the helix of the right ear.

The small wound bled rather freely, and was immediately cauterised by a physician in a neighbouring drug store. The wound healed nicely, and no further attention was paid to the incident. The dog was thrust into the highway, and was lost sight of immediately after the child had been bitten.

Six weeks later, on Saturday, August 11, 1900, the child complained of toothache, lassitude, and was nervous. Her mother gave her a dose of castor-oil, which operated freely. She passed a sleepless night, but did not complain until the next morning, when her mother began to wash her, when she sprang back and complained of pain in her throat. This pain returned whenever she was touched about her face or throat with the wet towel, or even at the slight draught of air that was caused by the movement of the towel. At the breakfast table she tried to drink coffee, but could not on account of pain in her throat. As the child seemed to be well otherwise, the parents did not send for me until about 12-30 P.M., expecting the symptoms to pass away.

When for the first time I saw her near that hour, the child seemed very bright, but shy in manner. Her pupils seemed abnormally dilated, the tongue thickly and evenly coated, the breath very offensive. The temperature was 104° F., pulse 104. Her gait and manner seemed normal. When asked to drink water from a glass, she at first refused with an expression of dread, saying it hurt her throat so much and made her short of breath. Upon urging she took the glass, and with sudden determination took a mouthful of water. Immediately that the water touched the pharynx, there was frightfully intense tonic spasm of the constrictors of the pharynx and other muscles of the neck, lasting from 10 to 15 seconds, and probably associated with a spasm of the glottis, as it was associated with dyspnoea and followed by a gasping breath. Although some tonic spasm still remained, she succeeded in swallowing the small mouthful of water in repeated efforts after the more intense spasm had subsided. She suffered from extreme thirst, but each effort at drinking produced the same frightful result, thus causing her to suffer the punishment of Tantalus. Solids could not be swallowed. A slight, artificially produced draught of air caused a similar, though less marked, attack.

During the intervals she was apparently only suffering from slight feverishness. The wound caused by the dog-

bite was healed, the scar being slightly reddened. She passed a sleepless night in spite of large doses of bromide and chloral. On the following morning, August 12, 1900, she and her parents were delighted because of her ability to swallow, after much effort, about one-half glass of milk. The child thought she felt better; but her temperature had risen to 101.5°, her pulse being extremely rapid—130 per minute. She insisted that she was not afraid of anything, but was easily startled. She was led to think that she would get well, but at times she was haunted by a nameless dread of something. She still had the great pain, dyspnoea and spasm in her throat upon attempting to swallow. She was kept in bed and was fairly quiet until 4-15 P.M., when she suddenly sprang up and assumed a crouching position at the edge of the bed, with an expression of intense, horrible fear continuing upon her face, staring at the opposite wall, giving vent to short, unintelligent cries also expressive of fear. This lasted for one or two minutes, when she would wake as from a dream, fondle her mother, saying "she had thought she was near death then." She again laid down quietly for a few minutes, when a similar attack occurred. She always clung to her mother's waist, kissing her face repeatedly after each attack, and asking whether her mother loved her still. I asked her gently not to kiss her mother, as I feared a possible inoculation, and she immediately desisted. After a hypodermic injection of $\frac{1}{4}$ gr. of morphin with $\frac{1}{100}$ gr. of atropin, the attacks became less frequent. She was sent to St. Christopher's Hospital, during an entire remission of symptoms from 5-15 P.M. to 8 P.M. During this interval she was quiet and rational. Afterward she became restless; later extremely excited, throwing arms, legs, and even entire body about violently, losing all consciousness of surroundings, emitting short cries as though in fear, and trying to escape. These convulsive and maniacal attacks were relieved by inhalations of chloroform, but recurred after one-half hour's interval of stupor. During the attacks the pupils were widely dilated, the lips withdrawn from the teeth, and an expression of wild fear was upon the face. The pulse was rapid but strong. The temperature, respiration, and pulse were as follow:—

	Temperature.	Pulse.	Respiration.
At 6 P. M. ...	103.0° F.	144	28
" 9 P. M. ...	104.6° F.	150	26
" 12 P. M. ...	102.8° F.	160	28
" 3 A. M. ...	103.4° F.	150	32
" 6 A. M. ...	101.8° F.	170	40

The patient received alcohol and water sponge-baths whenever temperature exceeded 103° F. The maniacal spasm, being most intense, was not affected thereby. Hypodermic injections of morphin were given to prolong the action of the inhalations of chloroform. The attacks of maniacal excitement continued until 6 A.M., when the patient became quiet and died at 7 A.M. of August 14.

The coroner was notified and a post-mortem examination made by Dr. WADSWORTH, who found severe congestion of the cerebral and spinal meninges, numerous punctate hæmorrhages in the spinal cord, and a rupture of the

* Read at a meeting of the Northern Medical Association, and reproduced from the Philadelphia Medical Journal.

pleura. A portion of the spinal cord was sent to Dr. MAZOOK P. RAVENEL, of the University of Pennsylvania, for diagnosis. In a private communication the latter says: "I have passed it through four generations of rabbits with positive results always. The examination of the intervertebral ganglion after the method of VAN GEMOETEN and NELIS, and of the bulb after BABE's method, confirmed the diagnosis positively."

In spite of the evidence presented, the coroner of Philadelphia, a layman, has entered the case upon the city health records as a case of convulsions, denying the existence of such a disease as hydrophobia.

The name hydrophobia appears to be a misnomer, as the patient was not afraid of the water, but of the painful spasm and dyspnoea caused by the touch on the throat or upper part of the chest of any liquid, or solid, or air—in other words, a centripetal impulse sent to the ganglion centres in the lower part of the medulla and upper part of spinal column, apparently the first portion of the cerebrospinal axis to become affected.

In the early stages, the suggestion to the patient that she should drink milk or water produced a slight spasm, in memory apparently of the terrible spasm caused by attempts to drink. Later on the sight of water was not especially distasteful, except that it was additional torture for the thirsty soul, who longed to drink and even asked frequently for a drink of water, but always found that she could not swallow without terrific and painful local spasm.

The prominent symptoms were the temperature, rapid pulse, deeply-coated tongue, offensive breath, slightly reddened but healed wound, lassitude, convulsive contraction, frightful in intensity, of the muscles of the neck and larynx upon the slightest peripheral irritation, dilated pupils, her tendency at first to be somewhat irritable, later very tender and loving as long as she retained consciousness. Later the intense fear and frightful convulsive movements of the body made in an apparent effort to escape from a most terrible vision, the convulsion being sufficiently great, indeed, to rupture the pleura, unconsciousness, and an apparent total absence of paralysis were the final features of this disease, so rare apparently in the human species in the United States.

TYPHOID FEVER WITH COMPLICATIONS, PYREXIA LASTING WITH RELAPSES TO THE 112TH DAY.*

By ARTHUR ANDREWS, M.B.C.S., ENG., L.S.A., LOND.

Albury, N.S.W.

G. G., aged 9 years, a thin, delicate girl, was first seen on December 25th, 1893, having been ill in bed 14 days. Her temperature was 105° and pulse 130. Bowels very loose, motions typical typhoid, abdomen distended and tender. Was drowsy and semi-conscious, much delirium at night. Tongue dry and glazed. Heart and lung sounds normal. Had severe rigor 15 days before and consider-

able fever since. The case ran the usual course of a severe attack of typhoid, with morning temperature 104° and evening 106°. Antipyretics with cold sponging were first resorted to, but finding the temperature could not be controlled, cold baths were given as often as the thermometer showed over 102°. Improvement followed, and on the 27th day the temperature was normal in the morning.

On 28th day temperature normal morning and evening, bowels quiet, and motion natural. That night she slept badly (it is believed that a younger sister gave her some passion fruit), and on the morning of the 29th day her temperature rose to 105.5°. Diarrhoea again became troublesome, tongue dry and glazed, and there was considerable abdominal distension. The baths were resumed, and were sometimes required as often as eight times in 24 hours.

On the 32nd day pneumonia was detected in the lower lobe of the right lung. This ran a mild course and cleared up satisfactorily. The baths were continued all through.

On the 35th day superficial abscesses began to appear, and during the next month 27 required incision. They were scattered over the scalp, arms, legs, back, groins, axillæ, and abdomen. Bed sores formed over the sacrum and hips. Diarrhoea and meteorism were very troublesome. High temperature was also persistent and could only be controlled by the baths.

After the 60th day the fever lessened and two or three baths daily only were required. At the same time ascitic fluid became obvious. The motions were still typical of typhoid, and occasionally contained small quantities of blood.

On the 70th day the ascites had decidedly increased, and the hepatic dulness was much extended. Diarrhoea was constant and the temperature rose to 104° within two hours after a bath. She failed steadily and the abdominal distension increased, being especially marked on the right side. As she appeared sinking, I performed laparotomy, thinking to find a hepatic abscess. The liver was much enlarged generally, but no pus could be found, several punctures being made without result. The peritoneum was slightly roughened in parts. Finding no definite lesion, I washed out freely with hot boracic lotion and closed the wound. She passed a typical motion while on the table.

From this time she improved steadily, sleeping comfortably the first night, and the temperature the next morning was only 100°. Diarrhoea, tympanites, and tenderness gradually lessened, and the temperature approached the normal.

The stitches were removed on the 90th day, and on the 93rd the temperature was normal morning and evening. She was kept in bed till the 103rd day, when the weather being very hot she was put on a couch for two or three hours.

On the 105th day another error in diet took place, and the diarrhoea returned with a temperature of 105°. There was but little distension or tenderness with this relapse. She was put back to bed and the bath resumed, and the

* Reproduced from the *Australasian Medical Gazette*.

temperature finally fell to normal on the 113th day. From this time she rapidly regained strength, and in three months was as strong and in better condition than before the attack.

* The surroundings of the case were very unsatisfactory, as the house was small and insanitary. A sister had a severe attack of typhoid at the same time and was removed to the hospital. The parents were very poor, and the only nurse available was the father. The mother was laid up in the house most of the time from a bad confinement, and was too weak to look after the girl at all. The weather was extremely hot, and the family were almost entirely dependent on the neighbours for food and necessaries. During the course of the case, 257 cold baths were administered. She always seemed to like them except for a few days when she had several abscesses forming, and the moving was painful. Each abscess was opened as soon as pus was evident. The medical treatment was confined to antipyretics in the early part of the case, and later digitalis, strychnia, and caffeine principally. Salol and naphthol controlled the offensiveness of the motions. Considering the whole course of the case it seems that the baths were certainly more conducive to the happy result than any other treatment, but real improvement did not set in till after the laparotomy, from which time it was most marked. At the operation there was no definite deposit of tubercle detected in the peritoneum, but the ascites would lead one to suspect it, especially as the washing out alone was so efficacious.

She is now (eight years after the illness) a well-grown, stout young woman, and never feels any ill-effects from the attack.

NOTES OF SURGICAL CASES: COMPOUND COMMUNUTED FRACTURE OF PATELLA : IMMEDIATE OPERATION : RECOVERY.*

Reported by I. G. MODLIN, M.D., B.S.,
Honorary Surgeon to the Monkwearmouth Hospital.

J. S., aged 28, was admitted into the Monkwearmouth and Southwick Hospital soon after midnight on September 1st, 1899, suffering from compound comminuted fracture of the left patella, caused by direct violence through coming into violent collision with a barrow whilst cycling.

I had him placed at once under chloroform and enlarged the external wound. The patella was fractured diagonally, the outer third of the bone remaining intact; the inner two-thirds was shattered into eight pieces. The quadriceps expansion, both above the insertion into the patella and the lower part, forming the ligamentum patellae, were almost completely divided, only a few fibres being left at the outer side. The periosteum was very much lacerated, and five of the eight fragments of bone were inside the knee-joint.

I carefully separated each fragment from the periosteum and removed it; the knee-joint was thoroughly doused with corrosive sublimate lotion, and a drain was inserted from the side. I brought together the lacerated periosteum as far as possible, and sutured it with fine catgut prepared in formalin. I next brought down the severed portion of the quadriceps tendon, and sutured it obliquely to that part which had not been torn near to its insertion into the tibia. The closing of the external wound with silkworm gut sutures completed the operation. The leg was put on a back-aplint.

The wound healed by first intention, and, at the end of three weeks, passive motion—very gentle at first, gradually increasing—was practised.

The leg is now as strong as the other one, and the patient walks without any limp. He has regained complete movement of the joint, and can cycle almost as well as before his accident. New bone has formed; the new patella is firm and very nearly as large as it was originally.

This case is of interest, as evidence of the very satisfactory result which may be obtained after severe injury of a large joint if it be treated at once with thoroughly aseptic precautions.

TRIPLETS WITH SINGLE PLACENTA.*

BY WILLIAM MCFARLANE, M.B.

Glasgow.

Mrs. S. was delivered in her third pregnancy of triplets—two girls and a boy—on the morning of September 16th, 1887. She was only 21 years of age when the triplets were born. She had twins for her first pregnancy when she was 18 years and 7 months; they were premature, being only 6½ months. She had a girl before the triplets were born, so she had borne six children when she was 20 years of age. When I saw her on the evening of September 15th, 1887, her pains were making little progress. On the morning of September 16th she was still making little progress, and was terribly oppressed from her great size. I punctured the membranes, and a large quantity of water came away. Immediately afterwards the first baby was born, a girl, then the two others followed almost immediately. The first two born were cranial presentations, the third was a breech, and was born with the sac intact. The placenta followed immediately. On examination it was found to be single and very large, and the three sacs, where each child had been could distinctly be seen. The first-born lived one month, the second five weeks, and the boy two months.

* Reproduced from the *British Medical Journal*.

* Reproduced from the *British Medical Journal*.

Indian Medical Record.

12th June 1901.

SOME OBSERVATIONS ON PLAGUE.

In a recent issue of an English contemporary appears an elaborate article on Plague, its bacteriology, bacteriological diagnosis, dissemination, prophylaxis and serum therapy, from the pen of Dr. R. TANNER HEWLETT, M.D., M.R.C.P., D.P.H., Bacteriologist to the Jenner Institute of Preventive Medicine, and Physician to the Seamen's Hospital Greenwich. We call the essential observations. After describing the bacillus pestis, the writer proceeds to show that in addition to man the following animals are liable to contract plague under natural conditions:—Monkey, rat, mouse, bandicoot, squirrel and marmot, and guinea-pig and rabbit. Of these, rats, mice, bandicoots and marmots are probably agents in spreading infection: the guinea-pig and mouse are the animals chiefly used for experimental purposes: the dog, cat, horse, cattle, sheep, goat and birds are immune. A very small dose of pure culture may fail to kill an inoculated animal. Rabbits are much less susceptible to plague than guinea-pigs, and may be injected with considerable doses of living cultures without showing marked illness. With reference to experimental immunity and protection in plague, KLEIN had found that a guinea-pig which had been three times injected with an amount of living culture insufficient to kill was still capable of being infected: that the blood of a guinea-pig which had twice passed through an attack of plague did not contain any appreciable amount of germicidal substances: and that the immunisation of guinea-pigs by sterilised cultures is an extremely slow and difficult process. If a broth culture of the bacillus were filtered, the filtrate was toxic only in large doses, i.e., the toxin-producing power of the organism was but slight. For practical disinfection a solution of sulphuric acid 1—250 was by far the cheapest and most efficient agent: an acid solution of corrosive sublimate 1—1400 could also be employed. Diagnosis could be established with certainty by bacteriological examination. (1) Make smear preparations with the blood and with fluid from the buboes. Stain some of the preparations with methylene blue or with weak aniline gentian violet (1:3)—in the latter instance after staining, clearing by rinsing for two or three seconds in weak alcohol (1:1). Other preparations were stained by GRAM's method. The cover-glasses after staining for three minutes, were washed, dried and mounted in Canada balsam and examined with a $\frac{1}{2}$ in oil immersion lens: the presence of numbers of short diplo-bacilli with polar staining, which were decolorised by GRAM's method, was highly significant. The bacilli might be scanty or numerous in the buboes, and might be accompanied by cocci and streptococci (these would stain by GRAM's method). The non-finding of the bacilli in a microscopical preparation counted for nothing. A microscopical examination could not be absolutely relied upon to establish the diagnosis in a primary case: cultivation

and inoculation should also be carried out if possible: but in the secondary cases during an epidemic it sufficed. If there were any expectoration, it might be similarly examined: in pneumonic cases the diplo-bacilli would be very numerous (the *diplococcus pneumoniae* was smaller than the plague bacillus and stained by GRAM). (2) If the characteristic bacilli were found, a fresh hanging-drop preparation should be made and examined for motility—the plague bacillus was non-motile. (3) Cultivations should be made on surface agar and gelatine with a platinum loop full of the material, the same loop being streaked over two or three tubes. Two or three broth cultures might also be made. In 24 to 48 hours the cultures would have developed and the naked-eye and microscopical characters might be noted. (4) Two or three small guinea-pigs should be inoculated subcutaneously in the abdomen with a little of the fluid (0.25 to 1 c.c.) from a bubo or with an emulsion of the material. Death would ensue within seven days, probably in two or three, with characteristic *post-mortem* and microscopical appearances, which could be confirmed by cultivation. As regards the dissemination of plague it appeared probable that the bacillus entered the body through a lesion of the skin: there was no evidence of inoculation by swallowing: in plague pneumonia, the inference was that infection took place through the respiratory tract. The rat was undoubtedly an important factor in the spread of plague, and under such conditions it had been proved that they migrated in considerable numbers. The sources of infection of the rats were various—the dust or soil of earthen floors soiled with the discharges, etc., of plague patients, grain soiled with the excretions of affected rats, and, commonest of all, feeding upon the dead bodies of infected animals, including human beings, and possibly rags, clothing and dressings of plague patients, and lastly, parasitic insects might convey the disease from one rat to another. The manner in which plague was transmitted from rats to man was to a large extent uncertain, possibly by the bite or through handling, but in all probability through the soil, food, fomites, or possibly insects. The transport of plague from one port to another by rats had not been proved. MANSON had put it very tersely when he said: "To prevent cholera, the tea-kettle, malaria the mosquito-net, and plague, the rat-trap." The bites of parasitic insects and the contact with insects soiled with plague material could also help in disseminating plague, and the German Plague Commission had suggested the constant scratching due to the irritation, with perhaps crushing of the insects, giving rise to lesions of the skin, which could readily be infected. In discussing the factor of preventive inoculation, the writer alluded to HAFKINE's vaccine, which was prepared by cultivating a virulent plague bacillus in broth containing a small amount of butter-fat. Successive crops of the staphylococcal growth were obtained by allowing the culture flask to remain at absolute rest in the incubator for a week, then gently shaking the flask, so that the growth fell to the bottom, and repeating this process half a dozen times during the course of a month. The fluid was then heated to 65—70°C. for an hour, and a small quantity of antiseptic added: this formed the vaccine fluid, the dose being about 3c.c. Another vaccine was

that of LUSTIG and GALOTTI. Instead of making use of the cultures, the intracellular products of the plague bacilli themselves were obtained thus: The plague bacilli were cultivated upon a layer of agar in large glass dishes. After some days' development the growth is scraped off with a bone spatula and dissolved in a 1 per cent. solution of caustic potash. The solution was then first acidified and the precipitate collected and dried *in vacuo*. This precipitate consisted of nucleo-proteids, and might be dissolved in 0.5 per cent. solution of sodium carbonate. About 3 mgrm. of the dry substance constituted the dose. Both vaccines produced some constitutional disturbance. The anti-plague serum might also be used as a prophylactic. Of these, a large array of figures given by the writer go to prove that HAFKIN'S vaccine has been undoubtedly successful, the mortality among the inoculated being some 80 per cent. less than among the uninoculated. The Indian Plague Commission, in reporting favourably on preventive inoculation, concluded: (a) That inoculation was harmless. (b) That when given in the incubation stage, it had in many cases the power of aborting the disease. (c) That inoculation afforded to all those inoculated a strong protection against attack by plague. (d) That in the few cases when inoculated people are attacked, a very large proportion recover. On the question of serum-therapy, the writer pointed out that as the *Bacillus pestis* produced only a weak toxin in artificial culture media, it was necessary, to produce an "antitoxin," to inoculate the treated animal, generally a horse, with unfiltered cultures. A virulent strain of the bacillus was cultivated in neutral bouillon for from 5 to 27 days, and the cultures were then heated to 60°C. for half an hour. The horse was injected subcutaneously with a first dose of 10 c.c. of this killed culture: this produced local swelling at the seat of inoculation and fever: when the symptoms had subsided, a second injection was given, and the process repeated again and again. Sometimes emulsions of agar cultures were employed instead of bouillon cultures: in either case the treatment was continued from three to six months. The horse was then bled, and its serum, now the anti-plague serum, used for curative purposes. Very varying reports had been given as to the efficacy of this plague serum. Taken as a whole, opinions appeared to be adverse to it. If given, one intravenous injection of 20 c.c. should be given as early as possible, followed by two subcutaneous injections of 40 c.c. each, and on each succeeding day 10 to 40 c.c. until the temperature had been normal for two days. Unquestionably, the anti-plague serum was far weaker than the anti-diphtheria and anti-tetanus sera, and to be of any value must be given in large doses.

THE MEDICAL DIFFICULTIES OF THE WAR OFFICE AND THE INDIA OFFICE, AND HOW THEY MAY AT ONCE BE MET IN INDIA.

THERE is a great difficulty in London in obtaining the right class of medical men for the I.M.S. and for the R.A.M.C., and yet there is a rumour that the I.M.S. is to be increased in strength. This crisis in London is the best opportunity for the India Office and the War Office

to utilise the material obtainable in the Medical Colleges of India to supply the medical needs of this country. Why, we ask, should the drags of the medical profession of Great Britain be sent into the I.M.S., when far better men for India's needs are obtainable in India itself? Why, indeed, in the interests of Indian finance, should not the good and reliable material for medical work available in India be utilised for India's needs, so as to save the Government of India and the Indian tax-payer 33 per cent. of the outlay on the present medical expenditure of this country?

We venture to suggest, in view of the present difficulties at home, that (1) the R. A. M. C. be withdrawn from India; (2) the I.M.S. be divided into an Imperial and Provincial Service—the former recruited entirely in London, as at present, the latter from Indian Medical Colleges, consisting of both European and Indian graduates of Indian Universities; (3) the officers of the Provincial Medical Service be styled "Surgeons," divided into five classes, the first class being styled "Senior Surgeons"; (4) that these classes represent the grades of Lieutenant, Captain, Major, Lieutenant-Colonel and Colonel of the I.M.S. respectively; (5) that they receive 33 per cent. less than the salary of each of the I. M. S. grades represented; (6) for each "Provincial" Surgeon thus employed, supersede one officer of the R. A. M. C. in British Station Hospitals and one I. M. S. Officer in each small civil station or other charge of secondary importance, i.e., one officer of the R. A. M. C. to be withdrawn from India, and the strength of the I. M. S. also similarly reduced for every Provincial Surgeon employed; (7) the strength of the Imperial Medical Service, the present I. M. S., to be fixed at the rate of two officers for each European and one for each native station hospital in India, and one for each large civil station and other important civil appointment, such as large medical schools and administrative posts, both civil and military.

The strength of the I. M. S. in India is 644; of the R. A. M. C. 236. There are only 309 posts in all India, both civil and military, in which I.M.S. men should be employed; the others are secondary and unimportant, and could efficiently be filled by a less highly paid staff. If, therefore, the present Military and Civil Assistant Surgeons were employed in the place of 355 I. M. S. men in these secondary appointments, we would have this large number of qualified military medical men set free for the work of British and Native station hospitals. It would be necessary, during the three or four years that it would take to recruit the surgeons in India of the "Provincial" Medical Service, that the Assistant Surgeon class be augmented. The Provincial Medical Service, like the I. M. S., would be available for Military or Civil duty.

It has been shown elsewhere, in the *Indian Medical Record* of the 30th January 1900, that this scheme can be worked with efficiency and with an annual saving to the Government of India of twenty-four lakhs of rupees. We would suggest that the Council of the Indian Medical Association take immediate steps to move the Government of India, the India Office and the War Office for the formation of a Provincial Medical Service, both for the purpose of opening a legitimate avenue of professional work for medical talent of a superior kind available in India, and to help the State in a time of difficulty and stress, when medical labor of a superior type is not forthcoming for India's needs from the English schools.

COMMENTS AND NEWS.

INDIANS AND THE I. M. S.

THE *Tribune*, the leading Indian paper of Lahore, says:—The Government of India have at present under consideration the question of increasing the strength of the Indian Medical Service, and until a decision has been arrived at as regards such increase of strength, the proposal to divide the furlough reserve of the service between the Civil and the Military Departments will, we are told, stand over. That the Indian Medical Service is very considerably undermanned has been long known. The Civil and Military Departments are affected, in an equally serious degree, by the paucity of qualified I.M.S. men. The number of doctors attached to the various Indian regiments is insufficient, and when an expedition is sent out, it is seldom equipped with its proper complement of medical men. The strain put on the department by the demand for doctors due to famine and the plague was very great, and we are aware that although all leave to medical men was stopped, and the services of large numbers of private practitioners were temporarily entertained, the troubles of the authorities due to the scarcity of duly qualified I.M.S. men were never at an end. The demand for doctors to be sent to South Africa from India had to be very considerably curtailed, and even then the Indian authorities were not in a position to entertain it.

These, briefly, are the reasons that have led the Government of India to consider the question of increasing the strength of the Indian Medical Service. But the authorities who have mooted this question are perhaps not aware that any material or substantial increase in the strength of the Indian Medical Service will not be practicable, at any rate for years to come. With all its existing advantages of good pay, excellent prospects and very liberal leave and furlough rules, the Indian Medical Service is not very popular with Englishmen. The number of candidates for the vacancies in this service thrown open to competition is seldom large, although the examination is held twice a year. Men who can do even tolerably well at home do not care to compete for an appointment in India; and the Indian Government must consider itself lucky if it succeeds in getting for its Medical Service second or even third-rate men. It is impossible for the Indian authorities to secure the pick of the medical schools in the United Kingdom. From the Report of the Commission only recently appointed to investigate into the working of the Army Medical Department in connection with military operations in South Africa, and from the criticisms published by various persons who saw things for themselves and are therefore in a position to form a correct and reliable opinion, it is clear that the service in the army is not at all popular with the English youth engaged in medical studies. We are, of course, aware that efforts will ere long be made by the authorities to offer inducements in the shape of more pay and better leave and furlough rules to young men to join the Medical Department of the army. But we may assume that the largest numbers from among the *alumni* of British medical schools that for some years to come will be forthcoming to join the army will be scarcely sufficient to meet the requirements of the British portion of the army. It is well known that in the South African war defective medical arrangements, due mainly to the scarcity of qualified doctors, resulted in a good deal of unnecessary and preventable loss of life. The various English regiments of Cavalry, Infantry and Artillery

were and are insufficiently provided with doctors, to say nothing about that reserve of medical men which it is essential for every well-equipped army in the world to possess. The numerical strength of the army in Great Britain is again going to be considerably augmented, and we are certainly not incorrect in thinking that for several years to come the British army authorities will not find it easy to get the number of doctors that they require from among the men now under training in schools and hospitals throughout the United Kingdom.

The Government of India will, under these circumstances, be well advised to turn from an already overtight market to get what it wants nearer home. The question that should engage its serious attention is, what means should be adopted to secure in India a sufficiently large number of duly qualified men, not only to meet the requirements of the Indian army, but also to provide against emergencies due to famine or plague or both. The question of utilising the services of Civil Assistant Surgeons in this connection might well be considered, and if answered in the affirmative, it would enable Government to satisfy its own needs, as well as to improve the pay and prospects of a very deserving class of officers, whose services have always been invaluable to the Empire. The grievances of the Assistant Surgeons have been represented to Government on several occasions. It is admitted that in no branch of the public service in India, to enter which a long and laborious study and practical training are essential, the children of the soil are worse treated than in the medical. After five years' study in the Medical College, a young man enters service as Assistant Surgeon on Rs. 100 a month. After serving seven years on this pittance, he has to pass a stiff departmental test in order to be promoted to Rs. 150; and before he can rise to Rs. 200, which is all that a first class Assistant Surgeon gets, he must undergo another examination at the end of 14 years' service. Two or three Civil Surgeoncies are open to the Assistant Surgeons in every Province, and of late five or six men among them in each Province have been given an additional Rs. 100 and made senior Assistant Surgeons. These concessions, although they have been gratefully accepted, are scarcely sufficient to suitably encourage a class of public servants that has deserved well of the Government and the public.

What the Government might do in this connection is this. Throw open a large number of Civil Surgeoncies, say 10 or 12 in a province, to which selected Assistant Surgeons of experience and proved merit might be promoted. Some such appointments as Superintendents of Central Jails, Lunatic Asylums, etc., might also be reserved for this class. Direct appointments in the army might be bestowed on the distinguished *alumni* of the Medical Colleges in India. This will ensure efficiency, besides serving as a valuable incentive to hard work among those undergoing medical training. The medical profession in India will thus be able to attract the pick of the Indian youth, and this will not only raise its tone, but also conduce to public convenience. The Assistant Surgeon class in India has produced men who, in professional skill as well as in probity, have made a name for themselves. Confining ourselves to the Panjab, we have only to mention names such as RAM KISHEN, SAHIB DITTA MAL DHINGRA, BAHIN KHAM, BRIJ LAL GHOSE, FATEH CHAND, MUNSHI CHAND, BHEE RAM, CHERTAN CHAH, BHAGAT RAM SAWHNEY, and BHAGWAN DAS, in order to prove that the Assistant Surgeons as a class may be relied upon to furnish a continuous supply of men who are sure to fill with distinction and

credit any post of responsibility to which they may be called by Government. The words I.M.S. attached to a name have no doubt the effect of magic in securing for their holder a good appointment; but they do not necessarily ensure skill and efficiency. The Indian Medical Service has no doubt produced in the past some very able and eminent men, and its ranks are even now adorned by some whose skill and ability are deserving of every praise; but it also contains a good proportion of men who are distinctly below the average, and whom some of our present Assistant Surgeons could give points and a beating. It is well known that in several places European civil officers, and in large towns the non-official European gentlemen, call in the Indian Assistant Surgeon, or some other private practitioner, in preference to the Covenant Surgeon or I.M.S. or B.A.M.C. men entrusted with the civil medical charge of the station or district.

As regards the granting of direct appointments in the army to the pick of Indian colleges, the scheme is perfectly feasible, and there can be no objection to raising the standard of education in our Colleges if that is necessary. Let the standard be as high as that qualified for by the best of men at present competing for the Indian Medical Service, and we are sure duly qualified Indians will be forthcoming in sufficient numbers to appear in the competitive examination to be held for the purpose. In case it is not considered advisable to abolish the I.M.S. test at present held in England, simultaneous examinations in India and England could be arranged for. In the Public Works Department, the children of the soil trained in Roorkee and other Civil Engineering Colleges in India have fully held their own in point of ability and efficient work against both R.E. men and those trained at Cooper's Hill; and there is every reason to believe that a similar experiment tried with reference to the medical branch of the public service will prove equally successful.

HIS MAJESTY'S DOCTORS AND THEIR WAYS.

A LONDON Exchange says:—"Long live the King!" is the universal sentiment, and such are His Majesty's health and constitution that there is every prospect of the loyal wish being gratified. But of course the King is only human, and is subject to all human ills just as other people are, and it is interesting therefore to observe His Majesty at such times and to see what precautions he takes.

In the first place, His Majesty only very recently chose the doctors that he preferred should attend upon him in his new and exalted capacity. The selections he made are of some interest and significance. The late Queen had always a resident physician in attendance upon her—Sir JAMES REID—but King EDWARD has no need for such constant medical service, and dislikes anything of this kind which is not absolutely necessary. Consequently, he has determined to content himself with what are known as "Physicians in Ordinary," this description being, really anything but an ordinary one, for it signifies the highest appointment possible.

His Majesty has followed the old Royal rule, and has appointed three of these to be his medical bodyguard. Three are chosen principally, so that in a crisis there should always be a preponderance of opinion on one side of the other.

One of the three is Sir WILLIAM H. BROADBENT, who has attended upon His Majesty whenever necessary during the last nine years, and has for that period been his chief medical adviser. Sir WILLIAM is a favourite with His Majesty, and it was for his medical services to the Royal Family that

he was awarded his baronetcy some years ago. The King has in many ways shown his great regard for him.

Sir WILLIAM, who lives in Brook Street, and has a large practice among the most fashionable people of the West-end, is an all-round physician, but has made a special study of irregularities of the pulse and heart.

Another of the three is Sir JAMES REID, who was, as has been said, for many years Queen VICTORIA's resident doctor, and who was so much liked by the King—when Prince of Wales—that he was even then made one of his physicians. An advantage which Sir JAMES possesses is that he received the greater part of his training under the famous Sir WILLIAM JENNER, and since he was quite a young man has been exclusively in attendance upon the Royal Family. Therefore he knows the King's constitution and the peculiarities which it has inherited and developed as well as he does his own.

As a doctor, Sir JAMES is chiefly remarkable for his extreme silence and reticence, notwithstanding the fact that he is the soul of courtesy. His demeanour in the sick-room is cheerful, but business-like to a degree, and he never wastes words, while he never speaks outside of the illnesses of one member of the Royal Family, not even to another, unless a very intimate relative indeed. This alone serves to make him well liked by the King, who has, when at all indisposed, quite a morbid horror about the circumstances being publicly discussed.

The other King's doctor, and one of whom His Majesty is extremely fond, is Sir FRANCIS LAKING, who holds the distinction of being the first medical man to accompany the King on his travels since his accession. He was chosen to go with the King on his recent trip to Germany, when His Majesty, whose nerves had been put to a severe strain by preceding events, really needed a doctor's counsel.

Sir FRANCIS has always been an exceptional favourite with the King by reason of his extremely bright and lively manner, which an eminent authority declared was in itself as good as half-a-dozen bottles of medicine and a surgical operation. His principle is to interest everybody who calls upon him in some way that will take their thoughts away from themselves, and therefore he keeps in his rooms an enormous collection of curios which he talks about in turn. He is a great collector.

As a doctor, he is noted for having few "cranks," and he tells those who ask him that the best system of life from a health point of view is to do what you like best, so long as it is sensible. He is a great believer, however, in "conservation of energy," and says that people wear themselves out too quickly now-a-days. He holds that people who have to work for fifty weeks in the year would do better to spend their holiday in bed than rush off to the Continent.

The son of Sir FRANCIS has inherited his father's taste for curiosities, and is an acknowledged expert in old furniture and such-like, so that the King frequently sought his advice and assistance in alterations which have recently been made at the Royal residences.

These three, to all intents and purposes, comprise the whole of the King's medical staff; but it may surprise most people to know that besides them there are no fewer than thirty other appointments of one kind and another connected with it. They are in most cases honorary.

There are five Physicians Extraordinary, one Physician to the Household, an honorary Serjeant-Surgeon, three honorary Surgeons in Ordinary, a Surgeon to the Household, a

Surgeon Apothecary, an honorary Surgeon Oculist and an honorary Surgeon Dentist, a Dentist to the Household, an honorary Anaesthetist and a Chemist and Druggist; whilst special honorary appointments are made to apply only to Windsor, Sandringham, Scotland and Ireland. This is the maintenance of the King's health provided for to the utmost degree.

His Majesty has only been seriously ill once in his life, but is regarded as an excellent patient from a medical point of view, in that he always looks upon the brightest side of things and refuses to lay himself up for any trifling feeling of indisposition. His Majesty goes about his business as usual when some other people would confine themselves to their rooms.

His constitution is good, and he looks after it well, and whenever he feels a little out of sorts he prefers to have people about him who will laugh and joke, and not those who make long faces and advise him that he "must really be more careful."

ANTITOXIN SUPERSTITION.

THE *Medical Brief* says:—Science is a great iconoclast. It is continually questioning the authenticity of all inspiration, and justly so in matters which can be tried by scientific standards. Science has followed close upon the heels of invention—testing, criticising, accepting, rejecting, modifying and improving all things.

Fakirism of all kinds has always tried to escape this process of analysis, investigation and judgment, from the divine right of kings and Heaven-delegated powers of the early Church down to antitoxin in medicine to-day. The obscure, mythical and undemonstrable always rests its claims in some intangible, insubstantial property or power which lifts it beyond and makes it superior to ordinary tests.

It is singular that the enlightened and trained mind of the twentieth century medical man can receive the "scientific" explanation of antitoxin's therapeutic efficiency with gravity. He knows the facts. In his mind's eye he can see the manufacturer's employee injecting rotten bouillon into the horse, sickening the animal. Then he can see them drawing off the bad blood, separating the fluid serum and mixing it with carbolic acid to control its odorous decay and infective properties.

The doctor knows by experience that carbolic acid is an old, tried and valuable remedy in certain types of diphtheria, scarlet fever and allied throat diseases. Yet many doctors, intelligent men too, are content to accept the hypothesis, undemonstrated and undemonstrable, that the cells of the horse elaborate and charge the blood with a mythical something called antitoxin, which neutralises the poison of diphtheria.

This invention of a morbid imagination is a relic of the superstitious inspirations of the middle ages before men so generally began to study natural law in its various manifestations and relations, to observe, analyse, and think independently of authorities. In the dawn of mind, almost anything could be asserted, its claims bolstered up and sustained by authority. Beliefs were emotional and highly contagious.

That day has largely passed. Experience and logic have done their work. Antitoxin cannot expect longevity on such a rotten basis. Pedantry, commercialism, dogmatism, class interest (bacteriologists, microscopists, Health Boards, and notoriety seekers in general) will continue to make a fight for it, aided by the self-limited nature and

varying type of diphtheria, together with the real efficiency of the carbolic acid in the serum; but truth is mighty, the scales will sooner or later drop from our eyes, and we shall see that antitoxin has never existed except in the imagination of its so-called discoverer.

NEW CALCUTTA LICENTIATES.

THE following gentlemen have passed from the Calcutta Medical College:—

First L. M. S. Examination (in alphabetical order):—

Bandyopadhyay, Haranachandra; Bandyopadhyay, Lalit-mohan, II; Bandyopadhyay, Prabodhkumar; Barori, Rajendrachandra; Basu, Anantakumar; Basu, Atulkrishna; Basu, Jyotindramohan; Basu, Satishchandra; Bhattacharyya, Mohitchandra; Chakrabarti, Benimadhab; Chakrabarti, Bieweswar; Chakrabarti, Makhanlal; Chattopadhyay, Asutosh; Chattopadhyay, Nandalal; Chattopadhyay, Karunakumar; Chaudhuri, Harimohan; Chaudhuri, Narendranath; Das, Guruprasanna; Das, Mahendrachandra; Das, Pasupatinath; Dasgupta, Bipinchandra; Datta, Satishchandra; Debmallik, Srischandra; Ghosh, Balaichand; Ghosh, Gobindachandra; Ghosh, Jogindranath; Ghosh, Kisorimohan; Ghosh, Radharaman; Ghosh, Satishchandra; Ghosh, Surendranath; Homewell, U; Majumdar, Binaylal; Maung Po La; Mukhopadhyay, Amulyachandra; Mukhopadhyay, Atalbihari; Mukhopadhyay, Narendranath; Nag, Susilkumar; Nandan, Abinashchandra; Nandi, Dulalchand; Pal, Susilchandra; Ray, Atulchandra; Raychaudhuri, Upendranath; Sarbadhikari, Saobindraprasad; Sen, Abinashchandra; Sen, Jnanadakanta; Sinha, Kaliprasanna; Srimani, Jogeswar.

Second L. M. S. Examination (in alphabetical order):—

Bandyopadhyay, Amarnath; Bandyopadhyay, Basantakumar; Bandyopadhyay, Upendranath; Basu, Durgapada; Basu, Upendranath; Bhar, Srischandra; Bhattacharyya, Kisorimohan; Chakrabarti, Jnanendu; Chakrabarti, Rameshchandra; Chandra, Jogindralal; Chattopadhyay, Arunchandra; Chattopadhyay, Charusasi; Chattopadhyay, Saratchandra; Datta, Asutosh; Datta, Kartikchandra; Gangopadhyay, Jnanendragopal; Ghosh, Bankimchandra; Ghosh, Kiranchandra; Ghosh, Lalitkumar; Ghosh, Mohinimohan; Gupta, Dwijendranath; Kundu, Jagannath; Majumdar, Tarakanath; Mandal, Birendranath; Mandal, Gokul Chandra; Mukhopadhyay, Asutosh; Mukhopadhyay, Binodbihari; Mukhopadhyay, Kshetragopal; Mukhopadhyay, Surendranath; Nandi, Pramathanath; Paladhi, Adharchandra; Pramanik, Gangadhar; Ray, Amulyachandra; Ray, Lakshminarayan; Ray, Saratchandra; Sanyal, Debprasad; Sarkar, Gobindacharan; Sengupta, Rakhachandra; Sin, Purnachandra; Sinha, Kiranchandra; Sinha, Narendranath; S. Saravanamuttu; Wince, W. G.

NEW UNDERGRADUATES OF THE CALCUTTA UNIVERSITY.

THE undermentioned candidates have passed the M. B. examinations in 1901 from the Medical College, Calcutta:—

Preliminary Scientific M. B. Examination. First Division (in order of merit):—Ratnavale, W. S.; Ghosh Radharaman.

Second Division. (in alphabetical order):—

Barat, Sanatkumar; Bhattacharyya, Nandlal; Chattopadhyay, Raghunath; Daniel, John; Dasgupta, Saralranjan; Datta, Madanmohan; Datta, Nalinikanta; De, Binodbihari; Gupta, Jatin-dranath; Homewell, U.; Maitra, Jatin-dranath; Majumdar, Binnaglal; Majumdar, Sansindrakumar; Mitra, Jatin-drakumar; Mukhopadhyay, Debendranath; Nag, Nrisinhaprasad; Pan, Nandlal; Pramanik, Tejchandra; Ray, Binaybhushan;

Ray, R. C.; Ray, Sudhansu Sekhar; Ray Chaudhury, Upendra-nath; Sarkar, Sureswar; Sen, Jyotindranath; Sen, Satis-chandra; Sen, Hymacharan; Sengupta, Surendranath; Sinha, Durgacharan.

First M.B. Examination, Second Division (in alphabetical order):—Bandyopadhyay, Satischandra; Chatteropadhyay, Harijiban; Das, Nibaran Chandra; Das, Tarinicharan; Maitra, Jatindranath; Sen, Apurbakumar; Sen, Ganenath.

Second M.B. Examination, Second Division (in alphabetical order):—Maitra, Dwijendranath; Mitra, Guruprasad.

The undermentioned candidates, who failed at the Preliminary Scientific M.B. Examination having attained the standard of the Preliminary Scientific L.M.S. Examination, are declared to have passed that examination:—

Preliminary Scientific L.M.S. Examination, (in alphabetical order):—Bandyopadhyay, Phanindranath; Bandyopadhyay, Satiakumar; Bhattacharyya, Nalinimohan; Bhattacharyya, Tridebdas; Chakrabarti, Premnath; De, Kanailal; Gupta, Rangulal; Gupta, Sureschandra; Maitra, Nirad-chandra; Mitra, Aswinikumar; Mukhopadhyay, Atalbihari; Mukhopadhyay, Kumudnath; Pal, Nagenandranath; Pal, Ramtaran; Podder, Jadulal; S. Manickam; Sanyal, Basanta-kumar; Sirdar, Surendranath; Sarkar, Haripada, Sen, Hem-chandra; Sen, Paresnath; Sen, Ramtarna; Sinha, Sadhu; Som, Jatindranath; Syed Ali Hasan.

The undermentioned unsuccessful candidate at the recent Second M.B. Examination having attained the standard of the Second L.M.S. Examination, is hereby declared to have passed that examination:—

Mitra, Ganendranath.

NEWLY QUALIFIED HOSPITAL ASSISTANTS.

THE following lists of students who have passed the final examination for Hospital Assistants are published for general information, arranged in order of merit:—

FROM THE CAMPBELL MEDICAL SCHOOL.

First Division.—Nogendro Nath Guha.

Second Division.—Bhola Nath Chakravarti; Jotindra Mohun Bhattacharja; Sarat Chandra Mukhopadhyay; Sasadhar Chatteropadhyay; Kalipada Gupta; Kishori Ballava Roy; Anukul Chandra Chaudhury; Surendro Nath Sarkar; Manmatha Nath Mitra; Sibhi Nath Chatteropadhyay; Aghore Nath Das; Suresh Chandra Mandal; Atul Behari Ghosh; Latu Gopal Mukhopadhyay; Upendro Nath Chatteropadhyay; Gosain Das Sarkar; Satis Chandra Chandra.

The following students have also passed the special examination in medico-legal subjects in March 1901:—

Bhola Nath Chakravarti; Atal Behari Ghosh; Kishori Ballava Ray; Gosain Das Sarkar; Aghore Nath Das; Sasadhar Chatteropadhyay.

FROM THE DACCA MEDICAL SCHOOL.

First Division.—Purna Chandra Chakravarti; Satis Chandra Sanyal; Umesh Chandra Majumdar; Gagan Chandra Dutta.

Second Division.—Lakhi Mani Gupta; Raj Chandra Dhar; Aditya Chandra Dutta; Durga Mohun Banerjee; Ram Chandra Adhikary; Umesh Chandra Chowdhury; Man Mohun Sarkar; Ananta Kumar Das Gupta; Jotindra Mohun Bhowmik; Basick Lal Guha; Purna Chandra Ghosh; Didar-uddin Ahmed; Shaukat Bala Banerjee; Basanta Kumar Dey; Bidu Bhusan Ghosh; Amir Hossain; Harendra Chandra Sii; Nagar Basu Saha; Shyma Charan Ghosh.

FROM THE PATNA MEDICAL SCHOOL.

First Division.—Narayan Bapuji; Maroti Madho Rao.

Second Division.—Mahomed Ismail; Gulab Singh; Sada-shiva Pundurang; Mahomed Waheed; Hameed Chandra Sinha; Kunj Behari Lall; Hanseshwar Sinha; Abdul Jabbar; Lutf Karim.

REFORM OF THE R.A.M.C.

A WRITER in the *British Medical Journal* asks for the following reforms for the R.A.M.C.:—

1. Maintenance of distinctive army rank and title.
2. The army surgeon to continue supreme in his own corps, the strength of which should be increased to a total of 1,200 officers.
3. The Director-General or P.M.O. to have a recognised place on the staff of the army and army corps.
4. Increase of pay as follows: £250 per annum on joining; £300 per annum after five years' service; £350 per annum after 10 years' service; £400 per annum on promotion to Major; £450 per annum after 15 years' service; £500 per annum after 20 years' service; £600 per annum after 25 years' service.
5. Retired pay to be increased in proportion to increase in annual income.
6. The right to retire on a pension of £1 per day after 20 years' service.
7. The continuation of the right to retire on a gratuity, or, if preferred, a pension graduated according to length of service, so as to prevent the possibility of a man, say of 15 or 18 years' service, being compelled to retire on a comparatively small gratuity.
8. Indian pay according to army rank and title.
9. The right of leave according to rank.
10. As far as possible, the equalisation of home and foreign service.
11. Appointment of a medical officer to a regiment or station for three or five years.
12. Abolition of half-pay appointments.
13. Effective training in army drill, duties, and equitation.
14. Recently appointed medical officers to go first to Aldershot for six months' military instruction, and to Netley after first tour of foreign or home service.
15. Entrance to the Army Medical Service to be by nomination in the first instance from the various medical schools in proportion to the number of the students, and subsequently by examination in medicine, surgery, and surgical anatomy for seniority.
16. Abolition of the examination in chemistry, botany, and materia medica, which is wholly unnecessary.
17. Sufficient leave to attend post-graduate classes at the various medical schools and hospitals.

18. The formation of a medical reserve. I do not think the idea of forming a medical reserve by means of the militia and volunteers will either work or be effective. What is required is a body of thoroughly trained surgeons and physicians, who must have had considerable operative and medical experience, and who could be called upon in an emergency to take up the same sort of work the civil surgeons have so effectively undertaken in South Africa. Men of the sort and age required are not so easy to get; they should be recruited chiefly from the house-surgeons and physicians of our hospitals and from others who are known to possess the requisite qualifications. London and the other large cities would probably supply the greater number of such candidates, whose

services should be secured by a liberal retaining fee, and who on appointment should be obliged to undergo the usual training in military duties, both at Aldershot and Netley. No candidate should be eligible under 28 years of age or over 35, and the period of service should be limited to twelve years. Rank and title should run according to length of service, and these officers should have the preference in all militia and volunteer appointments, but I do not think it would be a good arrangement to form a medical reserve out of the militia and volunteer medical officers, for reasons which seem to me sufficiently obvious.

19. Pensioned army medical officers of twenty years' service and under to be encouraged to join the militia and to be liable to be recalled to the army up to the age of 60.

20. The formation of a militia and volunteer medical staff corps.

21. Medical candidates at Netley should be treated as qualified physicians and surgeons, and not as students. The rule which insists on having prescriptions supervised and initialed by army medical officers is both annoying and absurd.

CLAIMS ON, AND DUES TO, THE I. M. A. PROVIDENT FUND.

THE Treasurer of the I. M. A. Provident Fund notifies to the Council as follows:—"Three claims amounting to Rs. 475 were paid to Mrs. MOHADER HAZRA, Mrs. B. E. RINGROW, wife of Military Assistant Surgeon G. C. RINGROW; Mrs. A. TRAYNOR, wife of Military Assistant Surgeon T. TRAYNOR, respectively, on the demise of their representatives by the late Treasurer, Major H. C. HODGKINS. Since that time the following claims by death of members have been submitted, viz., Mrs. C. C. LAWRENCE, widow of the late Surgeon J. LAWRENCE, of Belgaum, 16th December 1900; Mrs. B. O'NEILL, widow of the late Military Assistant Surgeon J. O'NEILL; Mrs. E. CROW (Sealkote), widow of the late Military Assistant Surgeon G. R. CROW, April 1901; Mrs. P. E. NORONHA (Bombay), widow of the late Military Assistant Surgeon E. J. NORONHA; Mrs. M. F. D. BAPTIST (Cawnpore), widow of the late Captain T. BAPTIST, 8th April 1901; Mrs. A. DODD, widow of the late Captain J. T. DODD. There are also two or three other claims from native members of the Fund, which ought to be made at once, in due form, by the claimants forwarding the necessary papers under registered cover.

Subscribers to the Fund will therefore kindly take notice that about 12 calls in all are due, and that, while some subscribers have paid some portion of these dues, a balance is still expected from them. A printed notice will shortly be served on each subscriber to the Fund showing what is due from him, and it is hoped that an early response by payment of dues will be made. The Fund has at present the sum of Rs. 689 in hand. This does not include the credit balance of the W. M. O. Provident Fund, which has yet to be carefully adjusted, and the statement of which is now passing through the press. The Treasurer invites the immediate attention of all concerned to these matters."

SOME INTERESTING STATISTICS OF INDIA.

THE following facts are taken from the "Administrative Statistics" of British India for 1899-1900:—

During the years 1895 to 1899 the following poisons were used to destroy human life by poisoners in India:—Arsenic, mercury, aconite, opium, datura, strychnine. In 7,788 suspected cases poison was discovered in 4,703.

From 1875 to 1899 the number of persons killed by snakes and wild animals in all India was:—By snakes 500,770; by animals 74,792.

In 1899 the number of deaths in all India from all causes was 6,418,409. The largest number, 634,986, occurred in the month of December, the smallest number, 434,064, occurred in February.

In 1899 the total number of indoor patients treated in all the State hospitals of India was 357,460, the death-rate in all was 8.1.

In 1899 the total number of out-door patients treated in all the State dispensaries of India was 20,320,822. The State expenditure of all India for 1899 on hospitals and dispensaries was Rs. 70,55,624.

In 1899 there were 4,584 lunatics, male and female, in all the State lunatic asylums of India.

In 1899-1900 in all India 2,992,665 children, from one year to under six years of age, were successfully vaccinated by the State.

In 1899, in all India, 526 criminals were hanged, and 1,515 were transported for life.

BOMBAY FASTING LADY PROVES A FRAUD.

A sub-committee of doctors appointed to investigate the case of BAI PREMABAI, the Hindu fasting lady, terminated their investigation this morning at 9 o'clock. Yesterday evening the nurses on duty had their suspicions aroused that the fasting lady had some sort of nourishment concealed on her person, and thereupon communicated with Dr. BRADLEY and the members of the Committee, and BAI PREMABAI was asked to undergo examination by Dr. BRADLEY. This she refused to do. She was then asked to go into an adjoining room; this she did, but while walking she dropped a small bundle from her *saree*, which proved to contain some concentrated form of food which had become decomposed from attachment to her person. It is supposed she brought this with her when the investigation commenced four days ago, and could not eat it owing to the closeness of the watch maintained. She was dismissed to her home. For some time, on the strength of her alleged capacity to exist without nourishment, PREMABAI had been treated by poor people as a goddess, who had given her large offerings of food and money.

TREATMENT OF SNAKE-BITES.

BABU ATUL CHUNDER BANERJEE, in charge of the hospital of the Balijan tea garden, writes to the *Times of Assam* of the successful treatment by him of a snake-bite under the following circumstances:—"A cooly woman, while working in the garden, was bitten by a poisonous snake which came out suddenly from the neighbouring jungle. Soon after she became insensible, and was brought to the garden hospital, a distance of a mile and-a-half, being carried by other coolies on a *charyat*. I found her quite unconscious, and immediately injected 15 minims of liquor strychnia hydrochlor over the heart. She soon recovered consciousness, and I made incisions at the bite on the leg, and burnt it with strong nitric acid. Finding that the patient was going to collapse, I again repeated the strychnia injection in the muscles of her left arm and followed it with a similar dose by the mouth. Since then the case began steadily progressing towards recovery. I did not stop there, but continued administering minims doses of the drug at intervals. In addition I gave her stimulants, and kept her moving to and fro. The woman was all right in the course of four or five hours."

ROYAL ARMY MEDICAL CORPS REFORM.

THE *British Medical Journal* says:—Sir JOHN TUKE asked the Secretary of State for War whether he proposed to adopt the suggestion contained in the Report of the South African Hospitals Commission to appoint a Departmental Committee or other committee of experts to inquire into and report on reforms in the R.A.M.C., and if so, if he was prepared to state the composition of the committee. Lord STANLEY, who replied, said that the Secretary of State was preparing proposals to submit to a committee of experts, but the composition of the committee could not at present be stated. Sir JOHN TUKE returned to the charge on Monday, and tried to extract a promise that the report of the committee should be in the hands of members before the Army Medical Vote came on for discussion, but the Minister for War declined to make any such promise, as he said it was impossible for him to give any pledge as to the time which such a committee as that proposed might think proper to give to its duties.

TEACHING OF GYNÆCOLOGY IN CALCUTTA.

It has been a longstanding disgrace to the Calcutta Medical College that its *alumni* were almost completely ignorant of gynecology, and to only a less extent of practical obstetrics. Professors in this branch of medicine busied themselves far too much with private practice to give even a brief half hour to bedside teaching. Men left the College with the haziest ideas concerning women's diseases. However, things have changed. The credit of the new *regime* belongs to Major F. S. PECK, I.M.S., the present professor of obstetrics and gynecology. Calcutta students are now regularly and patiently taught their work in the wards and in the operation and consulting rooms of the Eden Hospital by Dr. PECK, who devotes an hour daily every morning to this important task. Practical gynecology and obstetrics are now being systematically and thoroughly taught in Calcutta, while abdominal surgery is obtaining a success and popularity in this promising surgeon's hands, which bid fair to raise the reputation of the Eden Hospital to the status of the best London institutions.

ALMORA AS A HEALTH RESORT FOR CONSUMPTIVES.

REFERRING to our remarks on the case reported in these columns, the father of the young lady writes:—

"About my daughter's case, page 587, *Record*, 29th May, there are a few points not quite as stated therein. Almora is beyond Ranikhet, and not between Naini and Ranikhet. We were at Simtola, about 600 feet just above Almora, where there were about 500 pines in our compound. The scent from these during the day filled the air. In Almora itself the Gurkhas have cut down almost all the pines.

My daughter stayed six months and not four months. She gained 35 lbs. in weight and not simply 20 lbs.. It is now over two years, and there has been no return of any symptom of lung trouble, no fever or cough of any kind whatever. I could give you other cases of cure within my personal knowledge, and having received all this good, I feel the least I could do was to give others suffering thus an opportunity of receiving the same benefits."

DIRECTOR-GENERAL OF THE R. A. M. C.

No official intimation has reached Simla of the appointment announced by the *Daily Chronicle* of General Taylor to succeed General Jamieson as head of the Army Medical Service at Home, but the selection is an exceedingly suitable one. The great administrative ability displayed by General Taylor in his present responsible position as Principal Medical Officer with H. M.'s Forces in India having long marked him out for distinction. The admirable sanitary arrangements which have made the Indian Contingent the most healthy of all the allies in China were organised by General Taylor, to whom is also due a large measure of credit of the establishment of the Pasteur Institute at Kasauli.

SHORT ITEMS AND PERSONALITIES.

The Calcutta Municipality has begun its first model dwelling for working classes, which is to be built on the lines adopted by the Bombay Improvement Trust. Two lakhs have been allotted for the purpose, and it is hoped that owners of business will come forward and help in this excellent undertaking, and thus do away with the insanitary dwellings in which the poor are at present obliged to live.

Huxley not only did not believe in the Christian religion, but always showed a great antipathy to it. He believed that death ends all, but he wrote to Morley: "It is true that I find my dislike to the thought of extinction increasing as I grow older and nearer the goal. It flashes across me at all times with a sort of horror that in 1900 I shall probably know no more of what is going on than in 1800, and had sooner be in hell a good deal."

Dr. J. W. Stephens and Mr. Christopher, who have been sent out to India as delegates of the Malaria Committee of the Royal Society to undertake a scientific enquiry into the subject of malarial fevers, have been staying for several days in Calcutta, but have left for Simla, where they will definitely arrange their programme in concert with medical officers of the Government of India.

The biggest living man is said to be Mr. Lewis Wilkins, who is now arousing great interest in the scientific circle of Europe. Wilkins was born on a farm near St. Paul, Minn., in 1874. When but ten years old he measured 6 ft. in height, and now has grown to the tremendous height of 10 ft. 4 in.—just three-quarters of an inch less than 9 ft.—and weighs 364 lbs.

You reap what you sow—not something else, but that. An act of love makes the soul more loving. A deed of humbleness deepens humbleness. The thing reaped is the very thing sown, multiplied a hundred-fold. You have sown the seed of life; you reap life everlasting.

The Florida legislature has passed a Bill providing that four successive years of insanity on the part of husband or wife is just ground for divorce. The person getting the divorce must provide means for the maintenance of the divorced one.

It is reported that the grave of Hippocrates has just been discovered during excavations at Larissa in Thessaly. A royal commission has been sent to the place by the Greek Government to take what measures may seem advisable.

The Medical Society of Paris has expressed the opinion that it is necessary to adopt some measures against the alarming extent of petroleum drinking in France.

Santonin in doses of one grain every hour or two will usually give prompt relief in urethral irritation accompanying dribbling urine.

Recruitment at the next Indian Medical Service examination in London has been sanctioned of an extra officer for the post of Administrative Medical Officer for Rajputana.

WANTED—QUALIFIED FEMALE HOSPITAL.
Assistant for Lady Dufferin Hospital, Ranchi. Salary Rs. 50 per month; private practice allowed. Apply, stating qualifications and sending copies of testimonials to Mrs. Lusty, Ranchi.

Subscribers to the *Record* are kindly requested to send in their dues to the Manager without delay.

REORGANISATION OF THE ENGINEERING AND HEALTH DEPARTMENTS OF THE CORPORATION OF CALCUTTA.

The following are the main recommendations from the report of the Sub-Committee on the reorganisation of the Engineering and Health Departments, which have been accepted and will now come into force:—

For many years past the need for a reorganisation of the establishments under the Engineer and the Health Officer has been acknowledged by the Corporation, and various efforts have been made to introduce reforms. It has been admitted that under existing arrangements the operations of separate departments overlap, and, as a consequence, there exists a dual system of control which tends to shield the incompetent and negligent, and checks all attempt to fix responsibility on individuals. According to the present system also, supervision is centralised at head quarters and work is subdivided into departments, each of which is too large for effective management by any single officer. An effort was made seven years ago to bring about a reform in the work of these departments. On the 16th July 1894 the Corporation appointed a Committee to consider the subject. At the final meeting of the Committee held on the 18th January 1898, the new Health Officer desired that the Conservancy Department should remain in his charge, and in fairness to the recently appointed officer, the Committee, under the circumstances, decided to allow him to retain the work of conservancy for the time being in his own hands.

After a careful consideration of the present system under which the work of the Engineering, Health and Building Departments is carried on, the Sub-Committee unanimously came to the following conclusions:—(1) The Conservancy Department should be amalgamated with the Engineer's Department. (2) The Building Department should be a separate department, with a responsible officer in charge. (3) The city should be divided into districts, each district being self-contained in the Health, Building and Engineering items. (4) A local Municipal Office should be established in each district; it should be the centre of the municipal business for the district.

They consider that the Engineer should have charge of all labour gangs and construction work, and that the Health Officer should be regarded as an adviser in matters of the public health.

It appears to the Sub-Committee that an amalgamation of engineering and conservancy would prevent the adoption of inconsistent measures by two departments acting independently in respect of the same matter. The change would materially reduce the cost of the present double supervision, and minimise the present waste of time necessitated by constant references and orders in writing. It would remove the existing difficulty experienced by the rate-payers—particularly the poor and ignorant rate-payers—in ascertaining the proper officer from whom to obtain a prompt and efficient redress of their grievances. The division of the city into a certain number of districts, each with a local Municipal Office doing all, or nearly all, the executive work of a ward or a group of wards, would minimise the necessity of the rate-payers calling on the Chairman, the Deputy Chairman, or the Vice-Chairman for advice as to getting help in difficulties. Amalgamation with decentralisation, making each local Municipal Office (the District Office) the place for lodging complaints of every description cognizable by the Municipality, with the adoption of a regular system of entering in a proper diary all complaints, verbal or in writing, and with the salutary check of the supervising high officers of the head office carefully examining the results of enquiries made on such complaints, would be a

boon to the rate-payers which cannot be over estimated. Under the amalgamation scheme, the District Engineer would be a great spending agent of the Corporation.

The Sub-Committee accordingly recommend the subdivision of the city into four districts, each provided with a Central Office equipped with a complete establishment for the work of the Health Department, Building Department, and the Amalgamated Engineering and Conservancy Departments. The Committee consider that, as the scheme develops, a similar decentralisation should take place in the work of the Assessor's and Collector's Departments, but their remarks are immediately directed to the work of the Engineer and the Health Officer. The chief officers attached to a district should reside within that area, their officers being readily accessible to the residents for the disposal of complaints and references which do not require the orders of the Heads of Departments. There should be at least one *Gowkhana* in each district, the District Engineer being provided with a sufficient staff of coolies, animals and carts for the conservancy of his district. The Sub-Committee recommend that barracks be provided for the labour staff, and that coolies be engaged as wholtime servants.

In the work of the Health Department the Sub-Committee consider that there should be one qualified officer to represent the Health Officer in each district, corresponding to the District Engineer, and that the offices of Medical and Food Inspectors should then be abolished, competent Sanitary Inspectors being appointed in charge of manageable areas.

The Sub-Committee recommend the establishment of a Building Department. The officer in charge—the Building Surveyor—should possess the qualifications of an architect and engineer, and have a sufficient staff in the city to watch the interests of the Corporation.

The Sub-Committee consider that the head of the Engineering Department should be called Chief Engineer to the Corporation. His responsibilities are large, and he should always be a man of character and ability, his position being one of importance. They recommend that the salary be fixed at Rs. 1,800 to Rs. 2,500, rising by increments of Rs. 100 after the first two years. The engagement should be for three years, with the option of terminating the engagement after that period at any time on six months' notice on either side. Working directly under the Chief Engineer there should be District Engineers. They consider that each District Engineer should have charge of a Store Depot on a small scale, and that the existing Store Department should be abolished. The Committee recommend that the salary of the District Engineer be fixed at Rs. 500 to Rs. 1,000, the terms being: (a) Engagement for two years according to qualifications; (b) after this period the engagement to be terminable at any time on six months' notice on either side; and (c) salary to be incremental, rising by Rs. 50 after two years' service.

In addition to the four districts, the Sub-Committee recommend the establishment of a separate charge comprising the care and working of all the machinery, workshops, engines, locomotives and wagons of the Corporation. The officer in charge of this so-called district should be called the Superintendent of Machinery and be subordinate to the Chief Engineer, working under his orders. Under the Superintendent there should be such subordinate staff as may be required. The Sub-Committee recommend that the salary of the Superintendent of Machinery be fixed at Rs. 700 to Rs. 1,000, the engagement to be for two years, after that period terminable at six months' notice on either side. The salary should be incremental, rising by Rs. 50 a month after two years' service.

Details of the Health Officer's Department.—The Sub-Committee consider that the Health Officer should be the

expert adviser of the Corporation on all subjects relating to health, sanitation, and disease, and that his staff should consist of men possessing the necessary training and qualifications to assist him in the discharge of these duties. The District Health Officer accordingly should possess a knowledge of sanitation in addition to his medical qualifications. Hospital Assistants should be employed as vaccinators, and specially trained men be found for the posts of Sanitary Inspectors. As regards the salary of the District Health Officer, it was represented that men possessing European qualifications would expect from Rs. 400 to Rs. 600 a month. It was resolved to fix the salary at from Rs. 300 to Rs. 500, having in view the possibility of securing the services of competent men, though not necessarily possessing European qualifications. The pay of Sanitary Inspectors was fixed at Rs. 150 to Rs. 250, with the object of securing more suitable and better qualified men than those now in employment.

The Sub-Committee recommend that the office of Assistant Health Officer should be abolished, and that a Head Assistant should be allowed to relieve the Health Officer of clerical work, the Laboratory staff (two Analysts) to remain unchanged.

The pay of the Building Surveyor for the city was fixed at Rs. 700 to Rs. 1,000 a month, rising, after two years' service, by annual increments of Rs. 50 a month, and that of the Assistant Building Surveyors at Rs. 200 rising to Rs. 300 by annual increment of Rs. 10 a month.

The Sub-Committee recommend the adoption of the system of accounts of the Public Works Department of the Government of India for the Engineering Department. The Officer in charge of the Corporation Accounts should be an officer of the Accounts Department of the Public Works Department, making payments which are legally due. To ensure this result, the Accounts Officer must have both experience and discretion, and be strong enough to undertake responsibility.

The post of Lighting Inspector was considered to be useless, and it was decided that the work in connection with it should be carried out by the District Engineer's staff. The work of the Butee Overseeer also was held to be unnecessary, and that the establishment should be absorbed in that of the District Engineer. The Sub-Committee considered that the terms on which subordinate and menial staff are engaged by the Corporation requires revision. At present the majority of the staff engaged by the Corporation are on a pensionable scale. They strongly recommend that this be abolished, and that the staff should have no claim to any pension, but be placed on the ordinary terms of engagement, terminable at one month's notice. They recommend the Corporation to establish a Provident Fund; no bonus being payable to any employee who resigns under ten years' service. It is clear to the Sub-Committee that the present staff in many cases receive higher salaries than the new scale allows for corresponding duties. In many cases also men are being paid higher than their qualifications deserve. In order that due care may be taken in introducing the new scheme of reorganisation, the Sub-Committee recommend that one district be first constituted, worked and organised before the other districts are formed, even if the measure involves an extra expenditure. The financial result of the recommendations shows an annual saving of Rs. 24,828 in the expenditure on the posts which have been affected by the proposals. The actual result, however, it is hoped, will show a much greater saving, since a smaller number of coolies should be sufficient under the proposed closer supervision, and there should be no overlapping of gangs, while the time of coolies would not be wasted in travelling to the Municipal Office for payment of their wages.

Current Medical Literature.

MEDICINE. Gastropnoxis.

LOOKWOOD (*Journal of the American Medical Association*) concludes his article as follows:—(1) In the great majority of cases an adequate cause for the gastropnoxis is not discoverable; (2) gastropnoxis does not of itself, in an uncomplicated form, produce symptoms; (3) the displacement of the stomach, however, is a predisposing cause of a variety of gastric neuroses—of sensation, motion, and secretion; (4) these neuroses are usually induced by some definite mental or physical strain; (5) the displacement of the stomach is a strong exciting cause for muscular atony; that atony is the most common cause for the symptoms presented; (6) a complicating atony is associated with a more or less profound neurasthenia, and that a direct relation exists between these two conditions; (7) gastric acidity is increased in direct proportion to the atony, unless counteracted by gastritis; (8) mild degrees of gastritis are apt to occur in stomachs that are displaced, but the symptoms are neither severe nor persistent; (9) gastritis occurring in atonic and displaced stomachs reduces the excessive acidity of these cases and seems to modify the severity of symptoms; (10) atonic dilatation without mechanical hindrance is exceedingly rare; (11) dilatation or, better, muscular insufficiency, may occur in gastropnoxis from duodenal kinking, from arterio-neurasthenic constriction, or from pyloric spasm; (12) pyloric spasm is common in displaced atonic stomachs with hyperacidity, and may lead to a temporary dilatation; (13) in a large number of cases inattention to the conditions of atony, of neuroses, and of gastric secretions has led to an unsuitable, insufficient diet which reacts both on general nutrition and on local conditions within the stomach; and (14) surgical intervention is applicable only to the cases in which dilatation exists.

Removal of the Cervical Sympathetic Ganglia for the Relief of Exophthalmic Goitre, with the Report of a Case.

M. F. COOMES, (*American Practitioner and News*) after some remarks on the nature of GRAVER'S disease, states that he operated on April 7th, 1900, upon a colored woman, twenty-nine years of age, removing the three cervical sympathetic ganglia on the right side. This was a most typical case, and had existed two years, receiving the ordinary treatment at the hands of different physicians. Her temperature preceding the operation was 101° F.; the average pulse rate 140. The temperature and pulse records show that after the operation her temperature went down below 100° F., and the third day after the operation the pulse rate fluctuated, being 110 on April 19th, when she was discharged from the hospital, and that the temperature was normal, with the exception of two or three days, when it was up a degree or two, as a result of irritation of the wound. There was no suppuration whatever in connection with this operation; all the unpleasant symptoms gradually decreased; there was a decided improvement in the exophthalmos, the eyes receding very perceptibly; the excessive nervousness disappeared almost entirely, her sleep becoming peaceful, and there has been a decided increase in her bodily weight—a very great contrast to her restless condition preceding the operation.

Mitral Stenosis.

AFTER describing the etiologic factors, diagnosis, etc., MOSS notices three points in the investigation of the heart

which should be attended to in every examination: "(1) Remembering that the thrill and murmur are often perceptible in a very limited area only, auscultation should be practised not alone over the area for the four valves, but over the whole precordia as well. (2) Palpation should be made not only at the apex, but to the right of it also. (3) Percussion should always look for extension of the area of cardiac dulness upward and to the right. In employing these three procedures as a matter of routine, cases will be discovered that might otherwise escape detection." He also calls special attention to a sure and rapid method of determining any abnormality in the vertical extent of cardiac dulness which, so far as he knows, is original with Dr J. WILSON SHIELA, of San Francisco. "It consists in placing the third, second and first fingers of the left hand upon the third, fourth and fifth interspaces respectively. The divergence of the fingers will usually be found to correspond so well with the divergence of the ribs that the fingers will lie evenly in the spaces. Now striking the fingers from above downward, we normally obtain three notes of distinctly different quality, due respectively to lung tissue alone, to heart and lung, and to heart alone. Any variation from the normal will at once attract attention, and its cause may be sought by the usual methods.

Athrepsia Infantum Marasmus or Wasting Disease: Atrophy: Malassimilation of Food.

LOUIS FISCHER (*Journal of the American Medical Association*) states that PARROT was the first to define this disease, and he classified it into three stages: (1) The infant suffers from a simple diarrhoea: the stools are liquid, curdy, often green, and contain an excessive quantity of mucous. The abdomen is distended with gas. Stomatitis appears. The infant is restless and sleepless. The tissues become flabby, and wasting commences. (2) The symptoms are intensified. The temperature falls below normal. The wasting is extreme. (3) The third stage brings the child into a moribund state. Death then ensues. By far the greatest number of cases of athrepsia are found in bottle-fed children, though there are many among breast-fed children. The treatment consists in removing the cause. Medication amounts to nothing in the treatment. The blandest and least irritating food must be selected, while frequent weighing of the infants should be resorted to in order to ascertain their progress. When there is much diarrhoea, milk must be used sparingly or altogether omitted for a while. Small quantities of whey and barley water, white of egg and barley water, or the juice of a rare chop or steak may be given at short intervals during the day and night. As soon as the diarrhoea begins to improve, milk in some form may be allowed. At times we must resort to various methods of feeding, until we find the proper method upon which a baby will thrive. The writer then takes up the subject of humanised milk, sterilised milk, pasteurised milk, and peptonised milk.

Epilepsy due to Chronic Tobacco Poisoning.

THE patient, a man of 28, had his first attack at the age of 26; the second occurred eight months later; the third at the end of the first year. Subsequently the attacks occurred at somewhat briefer intervals, lasting longer, and being more severe. These attacks were preceded by dizziness and a sense of darkness; the patient then became unconscious and fell to the ground. There were no convulsive movements, but subsequently the patient felt exhausted. Aside from chronic constipation, there is no other disease. For 12 or 13 years he has been engaged in preparing tobacco for the market, treating the leaves by a secret process, and for this reason working in a small room that was absolutely without ventilation. Every day he stood from six to eight hours in an atmosphere loaded with the fumes of the leaves. BYCHOWSKI therefore ordered him to work in a larger room, and to expose himself as little as possible to the nicotine-laden atmosphere. The result proved the correctness of his belief that nicotine poison was the cause of the attacks, the patient recovering completely. It therefore seems to be fairly well established that in this case the epilepsy was due to chronic tobacco poisoning.—*Phil. Med. Jour.*

SURGERY.

Blennorrhæas not caused by the Gonococcus.

AXENFELD (*Dent. med. Week.*) calls attention to the fact that while the majority of blennorrhæas are caused by the gonococcus, cases not infrequently occur in the etiology of which other organisms are concerned—for example: (1) Diplococci, which are morphologically indistinguishable from gonococci, and are frequently found like them within the cells, but which do not decolorise by GRAM's method, and grow like staphylococci on ordinary media at the temperature of the room. Attacks of blennorrhæas caused by these "pseudo-gonococci" are, as a rule, milder and shorter in duration than the ordinary form. (2) Pneumococci. The diagnosis may be made by microscopic examination alone. The cornea in these cases is seldom affected, and recovery is rapid, sometimes by a sort of crisis. The incubation period in infants has not yet been determined; in adults it is about four days. (3) The bacillus of KOCH-WECKES may set up an acute conjunctivitis, but it is rarely met with. The small size of the bacilli which decolorise with GRAM is characteristic. (4) AXENFELD has seen two cases of conjunctivitis caused by the B. coli communis. The condition resembled that of a moderately severe gonococcal blennorrhæa, but in each case remained one-sided. (5) He has also had one case (in a child five days old) of double diphtheritic affection of the conjunctiva, with infiltration of one cornea, which quickly improved after antitoxin was injected. The cornea, it is to be noted, improved much less rapidly than the conjunctiva—a fact which may be explained by COPPEZ's observation that the cornea is not affected by the diphtheria bacillus directly, but by accompanying pyogenic organisms. (6) The author has also seen two instances of well-marked blennorrhæa in which no bacteria were found at all. These he ascribes to chemical irritation.

Surgical Importance of Jaundice.

ARCHIBALD MACLAREN concludes: (1) That slight attacks of jaundice are of comparatively little surgical importance, and that the majority of cases of surgical disease of the biliary passages have no jaundice at all. (2) That persistent jaundice, especially if progressive, is usually a contraindication; (3) while on the other hand intermittent, deep jaundice, especially if associated with chills and a rise in temperature, denotes a stone in the common duct which urgently demands removal. The writer also states that about half the patients who during life present symptoms of carcinoma of the liver are jaundiced. The surgery of cancer of the liver is very unsatisfactory. The disease is, in his experience, very aggravated, and the end is even hastened by an exploratory operation. Cholecystotomy and drainage give relief except in cancer of the common duct. Cancer of the gall-bladder, which is almost always found in cases when gall-stones have existed for years, should be removed if the liver be not too extensively infiltrated.

Requirements for the Success of Thiersch's Grafting in Varicose Ulceration of the Leg.

J. E. PLATT, surgical officer to the Cancer Hospital (the *Medical Chronicle*), says that, in order to ensure success in cases of chronic ulceration of the leg, it is absolutely necessary (1) to previously bring the ulcer into an aseptic condition; (2) to remove the edge of the ulcer before applying the grafts; (3) to treat varicose veins or other cause of the ulceration; and (4) to insist upon the patient resting the leg for a considerable period afterwards until the adhesion of the grafts has become firm.

Ligature and the Value of Dry, Sterilised Catgut.

DR. J. H. CARSTENS (*The Stylus*) makes the following points about the dry, sterilised catgut ligatures: (1) All buried ligatures ought to be absorbable. (2) All absorbable sutures must be absolutely sterile. (3) Chemicalised sutures are no more sterile than plain sutures. (4) A suture that is chemicalised is harder and remains longer in the tissues. (5) This latter is no advantage, but a disadvantage. If in a special case it is desirable that a suture should remain longer, dry sterilised kangaroo tendon can be used.

OBSTETRICS AND GYNÆCOLOGY.**Puerperal Sepsis: Its Prevention and Treatment.**

E. E. MONTGOMERY (*American Medicine*) says that the treatment of sepsis may be summarised as follows:—

1. Prevention by the exercise of the most careful asepsis and antiseptics.
2. The accurate study of each puerperal case to recognise the cause of high temperature and eliminate other factors than sepsis.
3. The maintenance of the vital forces and the promotion of elimination by the administration of diet and remedies to meet indications.
4. The employment of serum injections when streptococcal infection can be recognised or justifiably inferred.
5. Recourse to operative procedures must be governed by the local manifestations. Curettage is rarely justifiable in pure sepsis. Peritonitis or localised cellular inflammation in the pelvis should indicate vaginal incision and drainage. Hysterectomy is indicated whenever the uterus can be recognised as the seat of localised collections. When the ovary or tube only is involved, it should be removed. The recognition of a pus collection should indicate its evacuation or the extirpation of the organ in which it is situated.
6. The continuance of symptoms of sepsis when local manifestations are not recognised will justify incision to determine the presence of secondary sources of infection.

Quinine Sulphate in Incomplete Abortion.

SCHWAB (*Rev. Med. Chir. des Mal. des Femmes*) points out that obstetricians are not agreed as to the best treatment of incomplete abortion, some leaving matters alone unless hemorrhage or sepsis appear, others proceeding at once to the clearing out of the uterus with finger or curette. He is of the opinion that, save in cases in which the medical men can keep the patient under constant supervision, in which antiseptic precautions have been carried out since the commencement of the abortion and in which the os is still closed, the uterus ought to be emptied at once. He admits, however, that the curette has its dangers, and that ergot is inconvenient, so he recommends quinine sulphate. He has used it with success in seven cases of incomplete abortion. It is quite safe; it does not set up a tetanic condition of the uterine muscle; it may be given in two doses of eight grains at an interval of ten minutes, and it usually causes emptying of the uterus in about four and a half hours.

Appendicitis in the Female.

F. W. M'RAE (*Am. Journ. Obst.*) refers to the statistics of several eminent authorities, showing the relative frequency of appendicitis in the male and in the female.

EINHORN found in 18,000 successive autopsies, perforating appendicitis in 55 per cent. of males and 57 per cent. of females. ROBINSON, in 128 autopsies, found evidences of past peritonitis in or about the appendix in 68 per cent. of females and 56 per cent. of males. Clinically, EDEBOHLER finds that 4 per cent. of all women have appendicitis, while DEAYER believes that 80 per cent. of all cases occur in males.

Of 1,557 cases of appendicitis collected from the annual reports of the city hospitals of Berlin, 949 were males and 608 females. These statistics serve to show the divergence of opinion which exists as to the relative frequency of appendicitis in the two sexes. In nearly all the cases which had come under his own notice in the female, mistakes in diagnosis had been made either by himself or by the attending physician. Almost all the attacks had occurred at or about the menstrual period, and most of them had been mistaken for inflammation of the tube or ovary. In two of his own cases the appendix along with the right tube and ovary was involved. In other two cases the appendicitis was associated with diseased kidneys, whilst other two suffered from recurrent appendicitis with attacks of renal colic before or after operation for removal of their appen-

dices. He had records of forty-nine cases of appendicitis seen within the last sixteen months—twenty-nine males and twenty females, and had operated on seventeen males and fourteen females. The author proceeds to give details of some of his cases.

Dr. HAL. O. WYMAN cited a case of extra-uterine pregnancy complicated with appendicitis. He removed a fetus which had apparently died at the end of the seventh month of pregnancy, thirteen months after the appearance of the first symptoms of pregnancy. The appendix was found intimately blended with the fimbriae of the right tube. The right Fallopian tube was involved by dense inflammatory adhesions with the appendix, and it occurred to him that, in consequence of that blending, the impregnated ovum had escaped, and that some cases of extra-uterine pregnancy might be due to adhesions between the fimbriae and the appendix. In his case the appendix was 3½ in. long, had a number of scars, was much hardened at its end and at the point where union with the fimbria occurred.

Dr. HOWARD A. KELLY said that for four years he had made it a rule at the Johns Hopkins Hospital to have stated, on a slip, the exact condition of the appendix. During this period he had removed 150 appendices, of which number sixty were involved in pelvic inflammatory disease. In twelve cases the appendix was adherent to myometrium; in nine to ovarian tumours. He found carcinoma of the appendix secondary to ovarian carcinoma, without any traceable macroscopic relation in one case, and primary carcinoma in one other case. Tuberculosis of the appendix, secondary to tuberculosis in the tubes and ovaries, was present in three cases, the remaining cases included calculi, cystic disease, and uncomplicated appendicitis. In opening the abdomen for any pathological condition, he would examine the appendix, provided the incision was sufficiently large.

A Hitherto Unknown Variety of Uterine Stenosis.

L. LANDAU (*Berliner Klinische Wochenschrift*) narrates the history of the case of a woman aged forty years, who had never menstruated, but who, ever since her twelfth year, had complained of monthly attacks of pelvic pain and discomfort. She had had some operation for relief of the trouble, but without avail. Examination showed the existence of double hæmatometra and hæmatosalpinx; also the presence of a group of tumors which seemed to fill the entire pelvic basin, so a laparotomy was performed, and the uterus with the adnexa removed. There were found to be a hæmatometra of the uterine body, double hæmatosalpinx, right-sided productive oophoritis, hæmorrhagic cystoma of the left ovary, adhesive pachypelvic peritonitis, and hæmorrhagic cystoma of the pelvic connective tissue. But the most interesting condition was that of occlusion of the uterine canal by a round mass the size and shape of a small apple, solid in structure and occupying the position of the cervix, thence extending diffusely over the uterine body. It proved to be an adenomyoma of the mesonephron, or primordial kidney. This type of tumor has been described by VON RECKLINGHAUSEN, a short exposition of whose views is given by the author. The author considers it remarkable that a patient could have suffered from such a condition for so long a time without the occurrence of disastrous consequences.

Diagnosis in Cancer of the Body of the Womb.

M. HANDFIELD-JONES gives the following conclusions:

- (1) That in cases of corporeal cancer there is a stage of benign adenoma.
- (2) Uterine scrapings are not perfectly reliable, owing to the tissue being only superficial, and the deep part of the gland not being obtained. Later scrapings, when the disease is more advanced, are therefore more reliable.
- (3) Clinical signs are more valuable than microscopical evidence.
- (4) The degree of malignancy varies much, and the disease may run a very slow course.
- (5) Rapid increase in the size of the body of the womb is the most valuable sign in determining need for extirpation of the whole organ.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Bile and its Composition.

BILE is a reddish-brown, or between that and a greenish fluid. The color frequently varies according to the relative amounts of bilirubin that may be present. It is slightly alkaline, and has a specific gravity of 1026 to 1032. When derived from a fistula, the specific gravity will be about 1010 to 1011, owing to the lesser degree of concentration and precipitation from the absence of mucinoid material secreted from the walls of the gall-bladder.

COMPOSITION OF BILE.

Water	...	...	85.92.
Sodium glycocholate	{	...	9.14.
taurocholate		...	
Cholesterol, lecithin, fats	..	...	1.18,
Mucinoid material	{	...	2.98.
Bilirubin		...	
Biliverdin	...	...	0.78.
Inorganic salts	...	...	...

1000.00.

Investigations on Uric Acid Diathesis.

DR. ALTO S. BINSWANGER, of Portland, Oregon, discussing this subject in the *Medical Sentinel*, says:—

1. That uric acid is not the materia morbi in so-called uric acid lesions.
2. That uric acid acts pathologically only from a tendency to form concretions.
3. That its formation, far from being a process of auto-intoxication, is a process of desintoxication.
4. That the decrease in the excretions of uric acid observed in some morbid conditions is not due to retention, but to non-formation.
5. That the materia peccans in so-called uric acid lesions are the alloxuric basis.
6. That in all so-called uric acid lesions we find an absolute increase over the normal of the sum of uric acid and alloxuric basis, and that this finding is of diagnostic value.

Bacillus of Articular Rheumatism.

P. ACHARD says:—The bacillus which he described in 1891 is probably, as a rule, an ordinary saprophyte. Under the influence of fatigue or cold, the blood becomes favourable for its development, and it passes by way of the circulation to the heart muscle, where it locates, the activity of the muscle furnishing it with the culture-medium it prefers. It may propagate in the serous membranes of the endocardium or pericardium and in the pleura, even before the articular manifestations. The latter by their symmetry, their mobility, and their occasional sudden disappearance with complete restitution indicate that they are not directly microbial, but are due to the toxins generated by the bacilli announced in the primary focus—the heart muscle. There is a sort of eruption on the synovial membranes consecutive to the carditis, like the sore-throat of scarlet fever. The carditis may exist without articular complications. The bacillus causes an actual process of putrefaction in the living tissue, the products of which are probably amido-acids, as *in vitro*. Sodium salicylate combines with the most important of this group—glycochol—and is eliminated as salicyluric acid. This fact suggests an explanation of its heroic action in acute articular rheumatic manifestations. The bacillus is of the same size and shape as the anthrax bacillus and the septic vibrio. It is anaerobic, takes the GRAM and the CLAUDIUS stains, and requires a temperature above 21 and below 45 C. The sporulation is ovoid; not so terminal as that of the tetanus bacillus. It grows on milk with production of gas, and coagulates into a small clot, pitted with holes from the action of the bubbles. It induces an acid fermentation at the expense of the carbohydrates, but never sporulates in an acid medium. If a rabbit is inoculated with 2 c.c. of a culture of the bacillus, it usually dies in four or five days with serous effusions in the pleura and pericardium, but it is impossible to find any of the micro-organisms in the fluids or tissues. A smaller dose kills a young rabbit in thirty-six to forty-eight hours, with a pronounced infection of all the organs. The results of bacteriologic examination of patients are positive in some cases and negative in others; but before accepting the negative findings, milk or bouillon should be copiously sown with small cubes cut from the myocardium.—*Jour. Amer. Med. Assoc.*

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Chronic Gonorrhoea and Marriage.

THERE is no question in medicine about which there is more controversy than when it is proper and safe for a patient who has had gonorrhoea to marry. There is one fact, however, upon which all agree, namely, that the gonococcus must be destroyed in order to effect a cure. LUDWIG WEISS, in a scientific article in the *Record*, asserts that, as the method stands at present, there are two views current as regards chronic gonorrhoea and permission to marry. That of those who advocate the decision of the question on a purely clinical basis, and that of those who hold the opinion that only microscopical and bacteriological examination should be decisive. It is the old controversy between BEHRND, who adheres to the old astringent treatment of gonorrhoea, and NEISSER, the founder of the microbic origin and etiological treatment of gonorrhoea with the silver salts. BEHRND and his followers, BROEZE, SCHILLER, KROMAYER, and others maintain that "the demonstration of the gonococcus has a positive value only in those cases in which other clinical methods make its use superfluous, while in other cases the demonstration is so unreliable as to be valueless." In the face of the indubitably exhaustive microscopical and bacteriological researches of NEISSER, ERNEST FRANK, JANET, FINGER, and a host of other investigators, the contention of the former investigators is an untenable one. The antiseptic treatment of gonorrhoea, in connection with examination for gonococci, is without doubt the only rational method at present. It rests on exact scientific facts, and cannot be placed by a solely clinical aspect of the matter.

Endurance of Vegetarians.

BAELZ, of Tokio, is reported in the *Deutsche Med. Woch.* as having stated, at the meeting of the Berlin Medical Society, March 20th, that he has found the vegetarian Japanese actually more enduring than meat-eating foreigners in control tests, and the events in China have corroborated his experiences. In the interior of Japan it is impossible for the masses to procure even fish or much rice, and as the Japanese cows do not give milk, they have no butter nor cheese, and the food is limited to barley or buckwheat with one quarter rice, the soya bean and no meat. The soya bean contains as much albumin as beef and 20 per cent. oil, but the amount of cellulose renders it difficult to digest. The rich Japanese who eat rice more abundantly have soft bones, owing to the lack of lime in the rice. Children who eat much rice have grooves in their bones from the bands of their clothing, although rickets is unknown in Japan. Among the test of endurance he mentioned that he once drove 110 km. in fourteen hours, changing horses six times. A Japanese with a cart made the trip at the same time in 14½ hours. He had two rickisha men trot 40 km. with his weight of 80 kg. every day in the heat of the sun. At the end of fourteen days one of the men had gained 5 kg. in weight. He then added a little meat to their food, but the men said it made them feel tired, so it was suspended after three days. At the end of the twenty-second day of the test the men were as full of energy as at first.—*Jour. Amer. Med. Assoc.*

The Law says that Doctor must not leave Patient.

DR. P. H. FLOOD (*San Francisco Examiner*) was ordered to pay \$2,000 damages by the supreme court recently. Evidence showed that over a year ago he was called to attend Mrs. MARGARET A. LATHROPE. An operation was deemed necessary by him. Her screams interfered with his application of the necessary instruments. He finally said that if she "did not quit he would quit." And leave he did, although the patient was in agony. The husband followed the physician to the door, begging him not to go. He refused to come back, and it was over an hour before another doctor was obtained, the woman in the meantime suffering dreadfully. The other surgeon performed the operation, saving

the mother's life at the expense of that of the child. Mr. and Mrs. LATROFF sued Dr. FLOOD and got a verdict for \$2,000 in the superior court. Dr. FLOOD appealed the case to the supreme court, and the latter affirmed the lower court's action, saying in part: "It is the undoubted law that a physician may elect whether or not he will give his services to a case, but having accepted his employment, and entered upon the discharge of his duties, he is bound to devote to the patient his best skill and attention, and to abandon the case only under one of two conditions. First, when the contract is terminated by the employer, which termination may be made immediately. Second, when it is terminated by the physician, which can be done only after due notice and an ample opportunity afforded to secure the presence of other medical attendance. . . . He can never be justified in abandoning it (case) as did this defendant, and the circumstances show a negligence in its character, amounting well nigh to brutality."

Extent of Liability of Seller of Patent Medicines.

THE case of *West vs. Emanuel* was brought by a mother to recover from a druggist damages for the death of her daughter, alleged to have been caused by a headache powder, sold to her by the druggist. At the close of her case, and on motion of the defendant, a compulsory nonsuit was entered. This, the Supreme Court of Pennsylvania holds, was proper, as the evidence introduced failed in its opinion to establish or disclose a cause of action. The powder, it explains, was a patent or proprietary medicine, sold by the manufacturer to drug stores, and by them sold to their customers. And in the sales of patent or proprietary medicines furnished by the compounder of the ingredients which compose them, the court holds, the druggist is not required to analyse the contents of each bottle or package he received. If he delivers to the consumer the article called for with the label of the proprietary or patentee upon it, he cannot be justly charged with negligence in so doing.—*Jour. Amer. Med. Assoc.*

Method for the Differentiation of the Blood of Various Animals, with special Reference to the Demonstration of Human Blood.

UHLENHUTH has found what appears to be the first reliable biological differential test for human blood. The principle of the method lies in the fact that by injecting into rabbits, at intervals of six to eight days, small amounts of the defibrinated blood of any other animal, changes are produced in the rabbit's blood which cause it to give a reaction with the blood of that other animal alone, and with no other. If a few drops of the serum of a rabbit that has been treated with ox blood, for example, are allowed to fall into each of a row of test tubes containing dilute solutions of the blood of various animals, absolutely no reaction is produced in any tube except that containing ox blood, which at once shows a slight turbidity, which increases on standing, and finally develops into a flocculent precipitate. Similarly, a rabbit that has received injections of human blood furnishes an infallible reagent for detecting human blood, even in very minute amounts. So far the blood of nineteen different animals has been successfully tested, as well as the blood of man, the horse, and the ox, scraped from a board and dissolved in salt solution after having been allowed to dry for four weeks.—*New York Med. Rec.*

THERAPEUTICS & PHARMACOLOGY.

Value of Alcohol in the Acute Infectious Diseases of Children.

A. E. BIESER (*Pediatrics*), in an article in which the value of alcohol as a therapeutic agent in the acute infectious diseases of children is shown, says that alcohol cannot be termed a food in the sense that it produces tissue. He says that, while alcohol does not possess the tissue-building functions of food, it cannot be gainsaid that it possesses the fuel function of food in no mean degree. Regarded in this light, and being, chemically speaking, intermediate between a fat and a carbohydrate, it has been found that two fluid ounces of ethyl alcohol equals ten ounces of lean beef in fuel function. Furthermore, alcohol, by undergoing oxidation in place of the nitrogenous elements of the body in such exhaustive fevers as typhoid or diphtheria, saves tissue waste, stores up energy, and acts indirectly as a food; for if it cannot, *per se*, produce tissue, it can at least do the next best thing, *viz.* save tissue in these diseases. While alcohol should not be given in every case of fever, certain definite indications exist which imperatively call for its use: (1) Persistence of a high temperature; (2) persistence of a rapid, feeble, irregular, dicrotic pulse, whether associated with high, low, or irregular temperature; (3) persistence of marked prostration.

Therapeutic Uses of Thyroid Extract.

MURRAY reviews the whole subject of thyroid medication. The chief use is in conditions due to destructive disease of the gland, with diminution or cessation of its secretory functions. The use of the B.P. preparations is advocated. The relative potency is 6 minims of liq. thyroidei = 1 gr. of thyroideum succum, these quantities representing one-eighth of a lobe of fresh sheep's thyroid. The conditions in which thyroid treatment is based on physiological principles are myxœdema, cretinism, and parenchymatous goitre. Advanced cases of myxœdema are now rarely seen, but slight myxœdema is frequently the cause of ill health in women between 30 and 50 years of age, which yields to 10 minims of the liquor at bedtime, given for three or four weeks. In marked myxœdema there are two stages—treatment of the disease, and then the maintenance of this healthy condition. During the first stage, confinement in doors, if necessary in bed, is advantageous. Small doses should be employed and gradually raised. During the second stage it is necessary to give an amount of thyroid equal to the daily output of a healthy thyroid gland. Usually 1 dm. of the liquor, given in six, have not relaxed in four or five years. General tonic treatment is aided by electric fomentations and general electric baths, which seem to have a powerful stimulating action on the various organs.—*Ger. internat. de Therap. phys.*

Treatment of Diabetes.

THE *Ther. Gazette* contains the following combination containing boric acid, which it is claimed has been of curative benefit in treatment of diabetes. The cases in which it was used were young persons:—

R	Acid. borici	...	...	gr. xx.
	Glycerol	...	...	3i.
	Liq. arsenici hydrochlor	...	...	m. v.
	Liq. strychni hydrochlor	...	...	m. x.
	Aque destil.	...	...	q.s. ad. ℥i.

M. Sig: To be taken at one dose and repeated three times a day.

The arsenic and strychnine preparations are of one per cent. strength as contained in the British Pharmacopœia, and consequently the above dose of strychnine is on the border line of danger, and probably should never be prescribed in such size doses. It should be prescribed in doses of three to five minims.

For Neurasthenia.

R	Iron lactate	...	...	3ij.
	Iron arsenate	...	...	gr. ℥j.
	Extract of nux vomica	...	...	gr. viij.
	Extract of gentian	...	...	gr. xiv.

S. Divide into one hundred pills. Two pills to be taken three times a day.—*New York Med. Rec.*

Correspondence.

NEW AND AIDED METHOD OF MEDICAL ADVERTISING IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following advertisement appears in the *Bengalee* of the 6th June :—

"KAVIRAJ PEARY MOHAN MAZUMDAR'S AYURVEDIC MEDICAL HALL.

"After learning the Ayurvedic system of medicine from his father, the distinguished Kaviraj PEARY MOHAN MAZUMDAR, and after learning the principles of Western Medical Science from the Calcutta Medical College, and passing the final L. M. S. Examination (with first class certificates of honour in Forensic medicine, Comparative Anatomy and Zoology and Materia Medica) Kaviraj TARAK NATH MAZUMDAR, L.M.S., practises both the systems of medicine. All sorts of Kaviraji medicines, oils, ghesa, modaks, etc., are kept ready in stock. Mufadil patient's sending full particulars of their ailments are supplied with prescriptions gratis. All letters, &c., to be addressed to

KAVIRAJ TARAK NATH MAZUMDAR, L.M.S.
37, Lower Chitpore Road, Calcutta."

Here is how the *Bengalee* aids this advertiser in its issue of the 6th June :—

"A NEW MEDICAL PRACTITIONER.

"As will be seen from an advertisement published elsewhere, Kaviraj TARAK NATH MAZUMDAR, L.M.S., has begun practice as a medical man on an altogether novel method. Having passed the first M.B. Examination in the first division, he distinguished himself at the last L. M. S. Examination, obtaining first class certificates of honour in Comparative Anatomy, Zoology, Forensic Medicine, and second class certificate of honour in Materia Medica. He had his training in the Ayurvedic system from his early boyhood under his father, the illustrious Kaviraj PEARY MOHAN MAZUMDAR of this city; and thus he combines in himself the rare qualification of a thorough mastery of the medical sciences of both the East and the West. We have no doubt Dr. TARAK NATH will prove an ideal medical practitioner, and help a good deal to minimise the ills of the flesh by his profound knowledge of, and researches in, both the departments of Aesculapian lore. He receives patients at No. 37, Lower Chitpore Road, Calcutta."

It may be very kind on the part of the Editor of a lay newspaper to help a man who advertises in his journal with a smart "puff," but surely a medical man who resorts to such methods of attracting public attention is guilty of professional misconduct.

Yours, &c.,
L. M. S., CALCUTTA.

USE OF COCAINE IN CHILD-BIRTH.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I send a report of the use of cocaine in a case of child-birth attended by me on 12th instant, for favour of publication in your journal :—

The patient, a young, vigorous woman, labour commenced at about 3 A. M. with the head presenting. All seemed to be going well until about 8 P. M. when, although the os was well dilated and the pains strong, the case did not make any progress towards delivery. This went on till 10 P. M., when I recollected having read, in a previous issue of the *Indian Medical Record*, of the relaxing

effect of cocaine on a rigid os. Although there was no actual rigidity in this case, but as the patient was getting exhausted, I decided to try its use before resorting to instruments. Accordingly I used a 5% solution, and after soaking a piece of lint about 4 inches long and 2 wide in the solution, and tying a piece of tape to the lint for its extraction, inserted it about the os at 10-10 P. M., and removed it 10 minutes later, viz. 10-20 P. M., and at 10-35 P. M. the child was born, just 25 minutes after insertion, or 15 minutes after removal of the cocaine solution.

Of course I recognise the possibility of having over-estimated the value of the cocaine; but I believe, and so also did the nurse and others in attendance, that the speedy delivery following its use was due to it. Moreover, that the use of the cocaine greatly moderated the pain in the passage of the child was marked and testified to by the patient, who had previously borne three children, and who expressed her gratitude to me for the relief afforded by its use, the placenta also was within a very few minutes expelled by a single pain, followed immediately by firm contraction of the uterus.

This is only a single instance in which I have tried cocaine in these cases, but from the happy result experienced, I will in future always take it into use; but in this remote hill station, I fear the opportunities will be rare, and desire this publication, so that those of your readers who care to may give it a trial and report results if not found to be productive of the anticipated result. In hastening labour, it certainly, I think, cannot do any harm, as there was no diminution of the force or frequency of the labour pains following its use, and its anæsthetic effect on passage is much to be desired, if in any way to relieve poor suffering woman in her hour of anguish.

The patient made a good recovery.

Yours &c.,

STATION HOSPITAL;
Parandhar, 30th May 1901.

C. A. PRUCE.
Assistant Surgeon.

QUACK ADVERTISEMENTS IN CALCUTTA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following advertisement appears in the *Calcutta Statesman*:—

"A CARD."

"Professor MINNEY (massage specialist and electropath) is open to engagement for attendance on ladies and gentlemen at their residences, and undertakes to cure radically Sciatica, Lumbago, Rheumatism, Loin pains, Paralysis and diseases of the nervous system."

May I ask, Sir, who this man "massager" of women is? Has he any right to the title of "Professor," or is he like unto a man named "RICHARD," who made an ass of himself by a public exhibition by trying in vain to cure facial neuralgia and hæmorrhoids by "kissing" the affected parts. He gave out that he was "surcharged" with electricity, an abundance of the "fluid" being found in his "lips." May I ask how Mr. MINNEY undertakes "to cure." Does he know the legal definition of this term, and the responsibilities of the position? No doctor dare "undertake to cure" disease; but is it now a case of "fools rush in where angels fear to tread"? If so, what is the duty of the Calcutta Police in such cases.

Yours, &c.,
MEDICAL JURIST

CIVIL ASSISTANT SURGEONS IN THE N.-W.P. AND OUDH.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Will you kindly comment on the following :—

Nearly two years ago, when the latest rules about the pay and prospects of Civil Assistant Surgeons were issued

by the Government of India as a result of the numerous memorials continuously submitted to Government for no less than 10 years, somebody wrote in the columns of the *Pioneer* that the Assistant Surgeons went to ask for bread, but got stones instead. This roused the ire of the said paper, and the officers concerned were charged with ungratefulness. Now the scheme has been in force for the last two years, and what has been the result? The civil medical allowance has been reduced from Rs. 150 to Rs. 75 a month, and perhaps some have been debarred from going up for the ordinary septennial examination for promotion. The pay of senior grade officers is given in good many cases to those few lucky persons who were already making fortunes in large towns and cities; while those senior officers who in small districts only looked up to the civil charge allowance in cases of vacancies have to work for the civil surgeon for only Rs. 2/5 a day, which in some districts, from the amount of work, situation of Jail and Police Hospitals, &c., is hardly enough for carriage expenses. The allowance in question was provided for long before many men came into service for various considerations, such as position, increased responsibilities, etc., and it is extremely unfair to cut it down by a single stroke.

There are many Assistant Surgeons who would not like to be in civil medical charge on this allowance, but there is no way of escaping from it. Formerly all the senior officers in civil charge received Rs. 350 per mensem; now only a few selected as civil medical officers receive this pay. Thus, taking all the increase on one side, and decrease on the other, the increase is very small, and there has been no material benefit to the whole body of Assistant Surgeons.

Above all these disadvantages, the Assistant Surgeons, no matter however qualified, are debarred from the executive charge of the jail, which, according to the Manual of orders of Government, as a rule goes to Deputy Magistrates, whatever their services and standing.

Would it be too much to ask the Government to do something for these hardly used and not undeserving class of public servants? The best way to do this is to notify Assistant Surgeons as officiating Civil Medical Officers when opportunities occur. This would entitle them to the full medical charge allowance and the jail allowance.

Yours, &c.,
L. M. S.

BOOK REVIEWS.

HYGIENE AND PUBLIC HEALTH.

By LOUIS PARKES, M.D., D.P.H., LONDON,

Lecturer on Public Health, St. George's Hospital Medical School, London, &c., and

HENRY KENWOOD, M.B., D.P.H., F.C.S.,

Assistant Professor of Public Health, University College, London, &c.

(Publisher, H. K. Lewis, 136, Gower Street, London, W. C., 1901. Price 12s.)

This volume is one of Mr. Lewis's "Practical Series," bound and printed in his best style. It contains 732 pages, is well illustrated, and is second to none of the best text-books on Public Health. The authors are practical teachers of high repute.

MEDICAL ANNUAL SYNOPTICAL INDEX.

This is a most valuable addition to the ordinary yearly "Index" of Messrs Wright and Co's. (Bristol) now famous ANNUAL. It contains a complete synopsis of twelve years' Annals put together (from 1887 to 1898). The price is 7s. 6d.

DISEASES OF THE NOSE AND THROAT.

By F. DEHAVILLAND HALL, M.D., F.R.C.P., LOND.,

President of the Laryngological Society of London, and
HERBERT TILLEY, M.D., LOND., F.R.C.S., ENG.,

Surgeon to the Throat Hospital, Golden Square, London.

(Publisher, H. K. Lewis, 136, Gower Street, London, W. C. Second Edition, 1901. Price 10s 6d.)

A handy volume of 605 pages with two colored plates and 50 illustrations, excellently got up, a distinct improvement on the first edition, bringing the whole range of modern rhinology up to date. A trustworthy guide to students and practitioners.

Government Medical Gazettes.

BENGAL.

Asst. Surgn. Annoda Prosad Ghosh, in temp. ch. of the sub-divn. of Goalundo and the E. B. S. By Hosp. there, is apptd. to the med. ch. of the Chanchal Dispy. in the Malda dist., vice Asst. Surgn. Surut Lal Basu, transferred.

Asst. Surgn. Surut Lal Basu, of the Chanchal Dispy., is apptd. to the med. ch. of the sub-divn. at Goalundo, and also to the E. B. S. By Hosp.

Asst. Surgn. Bisenanto Kumar Roy, a supy. at the Med. Col. Hosp., is apptd. to act at the Goalundo sub-divn. and E. B. S. By Hosp.

Asst. Surgn. Kali Prasanna Lahiri, of the Darbhanga Dispy., held med. ch. of the civil station of Darbhanga from the 23rd to the 25th April 1901 in addn. to his own duties.

Maj. J. H. T. Walsh, I.M.S., Civil Surgn. of Murshidabad, is allowed privilege leave for three months, from the 1st May 1901, and is permitted to combine with it furlough for nine months.

Asst. Surgn. T. H. Bonner is apptd. to act as Insp. Mer. Offr. in ch. of the Plague Obvsn. Camp at Mairwa, from the 14th April 1901.

Maj. J. G. Jordan, I.M.S., Offg. Civil Surgn., Nadia, is granted special leave for three months, from the 25th April 1901.

Asst. Surgn. Amulya Chunder Champati, of the Krishnagar Dispy., held med. ch. of the civil stn. of Nadia in addn. to his own duties from the 28th April 1901.

Dr. A. da Fonseca Dias, Inspg. Med. Offr., Mairwa, is apptd. to act as Civil Med. Offr. of Nadia, from the 28th April 1901, during the absence, on deputation, of Maj. U. N. Mookerjee, I.M.S.

Asst. Surgn. Amulya Chunder Champati, of the Krishnagar Dispy., held med. ch. of the civil stn. of Nadia in addn. to his own duties from the 25th Feb. to the 8th April 1901, during the absence, on privilege leave, of Maj. J. G. Jordan, I.M.S.

Asst. Surgn. Brojo Nath Chowdhry is apptd. temply. to have med. ch. of the dist. of Jessore, during the absence, on deputation, of Lieut-Col. Dharma Das Basu, I.M.S.

Lieut-Col. Dharma Das Basu, I.M.S., Civil Surgn. of Jessore, is apptd. to act as Civil Surgeon of Baugpur, during the absence, on deputation, of Maj. Narendro Prasanna Sinha, I.M.S.

PANJAB.

Hosp. Asst. Hussain Ali from Umballa to Ludhiana for plague duty, which he joined on 1st May 1901.

Hosp. Asst. Dittu Ram, on transfer from Gurdaspur, and Nuckal Sain, from Narot in the same dist., were placed on duty at the Mashobra Plague Inspection Post, Simla Dist., from the 4th May 1901.

Hosp. Asst. Sheikh Amanat Hussain (C. P.) from Umballa to the Plague Insp. Hosp., Kalka Road, in the same dist., which he joined on the 21st April 1901, relieving Hosp. Asst. Radha Kishen.

On transfer from Kalka, Hosp. Asst. Radha Kishen was apptd. to the Police Hosp., Ludhiana, from the 23rd April 1901, vice Hosp. Asst. Ruku-ud-din.

On being relieved of the ch. of the Police Hosp., Ludhiana, Hosp. Asst. Ruku-ud-din was apptd. to the ch. of the Narot

Diap., Gurdaspur Dist., on the 2nd May 1901, *vice* Hosp. Asst. Nuckal Sain.

Hosp. Asst. Ghulam Muhammad, doing gen. duty at Feshiarpur, was granted leave on med. certificate from the 16th to the 29th April 1901, both days inclusive.

Capt. A. W. T. Bulet, I.M.S., Civil Surgn., Plague Med. Offr., Gurdaspur, is granted privilege leave for three months. On transfer from Shahpur, Hosp. Asst. Jamiat Rai was apptd. to the Sakhesar Hill Diap., in the same dist. from the 4th May 1901.

Hosp. Asst. Ghazi-ud-din reported himself to the Civil Surgn., Karnal, for gen. duty on the 4th May 1901.

Hosp. Asst. Usman Ghani, Police Hosp., Ferozepore, was deputed on plague observation duty in that dist., for the 20th and 21st April 1901, during which period, Hosp. Asst. Imam-ud-din, Jail Hosp., held ch. of the Police Hosp. in addition to his own duties.

Hosp. Asst. Imam-ud-din, Jail Hosp., Ferozepore, was apptd., as a tempy. arrangement, to the ch. of the Police Hosp. in addition to his own duties, from the 25th April 1901, *vice* Hosp. Asst. Usman Ghani, placed on plague duty in the dist. from that date.

Hosp. Asst. Ranpat Rai resumed ch. of his travelling duties on the N.W. Ry., Bawalpindi Section, on the 10th May 1901, relieving Hosp. Asst. Jagann Nath.

Hosp. Asst. Usman Ghani, Police Hosp., Ferozepore, was placed, as a tempy. measure, in ch. of the Moga Diap. in that dist. from the 13th to the 18th April 1901, during the absence of Hosp. Asst. Ghasita Mal at Ferozepore for his septennial professional examination.

Hosp. Asst. Imam-ud-din, Jail Hosp., Ferozepore, held ch. of the Police Hosp., in addition to his own duties, from the 13th to the 18th April 1901, during the absence of Hosp. Asst. Usman Ghani at Moga.

Hosp. Asst. Nur Mahi, on transfer from Umballa, was apptd., as a tempy. arrangement, to the Rupa Diap. in the same dist., from the 2nd May 1901, *vice* Asst. Surgn. Jugal Kishore, placed on plague observation duty in the dist. from that date.

CENTRAL PROVINCES.

Civil Hosp. Asst. G. Ramaiya Naidu is directed to resume ch. of the Sironcha Branch Diap., Chanda Dist.

On being relieved of the ch. of the Sironcha Branch Diap., Civil Hosp. Asst. Srikrishna is apptd. to Jail Hosp., Chanda.

Civil Hosp. Asst. Arundai Patilak, tempy. attached to the Jail Hosp., Chanda, is directed to do duty under the orders of the Civil Med. Offr., Chanda.

On being relieved by Civil Hosp. Asst. Ramkrishna Appaji, on return from leave, Civil Hosp. Asst. Beni Parshad, tempy. attached to the Murwara Branch Diap., Jabulpore, is directed to resume ch. of the Sihora Branch Diap. in that dist.

On being relieved of the ch. of the Sihora Branch Diap., Civil Hosp. Asst. Ramkrishna Paikaji is directed to do duty under the orders of the Civil Surgn., Jabulpore.

Privilege leave for two months is granted to Civil Hosp. Asst. Girma Zingu, attached to the Mayo Hosp., Nagpur, from the date on which he is permitted to avail himself of it.

Civil Hosp. Asst. Raghunath Parshad was placed on gen. duty at Khandwa.

Civil Hosp. Asst. Raghunath Parshad, on gen. duty at Khandwa, is apptd. to the Jail and Police Hosp. at that stn.

Civil Hosp. Asst. Vithal Raghoba Lande is apptd. to the Mandhata Branch Diap., Nimar Dist.

Doctor Jiwan Ali, attached to the Mandhata Branch Diap., is apptd. to the Asirgarh Branch Diap., Nimar Dist.

Civil Hosp. Asst. Nathulal Dube, on famine duty (Civil) in the Nimar Dist., is apptd. on plague duty at Burhanpur in that dist.

Privilege leave for two days (13th and 14th Dec. 1900) was granted to Civil Hosp. Asst. Ramkrishna Paikaji, who was on gen. duty at Hoshangabad.

Capt. A. G. Hendley, I.M.S., Civil Surgn., Hoshangabad, is placed on special duty at Pachmarhi for the period from the 1st April to the 30th June 1901.

Civil Asst. Surgn. Ganda Mal, attached to the Raipur Main Diap., is apptd. to officiate as Civil Med. Offr., Hoshangabad, during the absence, on deputation, of Capt. A. G. Hendley, I.M.S.

Civil Asst. Surgn. Ganda Mal, Offg. Civil Med. Offr., Hoshangabad, to the executive and med. ch. of the Hoshangabad Jail.

On relief by Capt. C. E. Watson, I.M.S., Civil Asst. Surgn. Krishnaji Kashinath Gukhle, Offg. Civil Med. Offr., Raipur, is directed to assume ch. of the Raipur Main Diap.

BURMA.

Capt. B. J. Singh, I.M.S., made over, and Capt. C. Duer, I.M.S., assumed, ch. of addnl duties as Med. Offr., Central Jail, Insein, and Ry. Med. Offr., Insein, on the 21st March 1901.

Hosp. Asst. Maung Kyaw Lun, on proceeding on three months' privilege leave, relinquished ch. at the Lunatic Asylum, Rangoon, on the 19th April 1901.

Hosp. Asst. Shaik Abdul Majid relinquished ch. at the Outpost Hosp., Tiddim, Chin Hills, on the 3rd January 1901, and assumed ch. of his duties with the Chin Hills Resort at Tiddim on the forenoon of the same date.

Hosp. Asst. A. C. Bannerjee relinquished ch. of his duties with the Mogaung Escort at Mogaung on the 2nd April 1901, and assumed ch. at the Police Hosp., Myitkyina, on the 3rd April 1901.

Hosp. Asst. A. B. Mukerjee relinquished ch. at the Outpost Hosp., Nampaung, Bhamo dist., on the 6th April 1901, and assumed ch. at the Police Hosp., Bhamo, on the 9th April 1901.

NOTICES TO CORRESPONDENTS.

J. D. (Moulmein).—The transactions of the I. M. A. and the I. M. A. Provident Fund are fully reported in the *Record*.

U. C. M. (Jask).—The degree of M. D., Lond., has undoubtedly the highest academic value in the British Isles. All other degrees in medicine of British Universities are held to be of fairly equal value. The London M. D. is no easier today than it was five years ago. An effort is being made to minimise the stringency of its examinations.

T. K. G. (Bombay).—Thanks; your article has already appeared in the *Record*.

R. K. G. (Gauhati).—Gilce's report on Kala 'Azar appeared in official form, published by Government. It is not for sale.

W. R. M. (Lucknow).—The W. M. O. Provident Fund lists are in type and may be issued in a fortnight's time. Many thanks for your letter.

M. I. P. (Bellary).—Tinctura Blata Orientalis is a non-official preparation. Apply for further information to writer of the article in question.

S. L. (Mount Abu).—You will find all the information you need regarding medical education in this country and in the British Isles in the *Medical Register and Directory of the Indian Empire*. Apply to Manager of this office.

G. K. (Rahimnagar).—Nicholson's ear drums are a fraud; they have often been denounced.

A. V. (Perak).—Many thanks for the information re Gaugadin.

H. G. B. (Naini Tal).—Your interesting paper was too late for this number. It will appear in the issue following.

A. F. H. (Kranter).—It would be impossible to advise you satisfactorily without seeing the patient.

G. M. V. (Lucknow).—Your request partakes of the nature of an advertisement of the book in question. Kindly refer to the Manager for terms.

N. B. D. (Peacock Chemical Works).—The above applies also to your letter.

A. V. N. (Alangudy).—Try dilute sulphuric acid, $\frac{1}{10}$, in an ounce of water, every two hours. As the symptoms are relieved, make the interval of the doses longer; keep the bowels free with sulphate of magnesia.

ORIGINAL ARTICLES.

PROPHYLACTIC TREATMENT AGAINST HYDROPHOBIA AS CARRIED OUT IN THE PASTEUR INSTITUTE OF INDIA, KASALI.*

(UNDER MAJOR D. SEMPLE, M.A., R.A.M.C., DIRECTOR.
And a Personal Experience of the Treatment by
Military Assistant Surgeon R. G. BARONAU, I.S.M.D.)

BEFORE detailing PASTEUR'S system, I shall endeavour to give a brief description of hydrophobia, with its symptoms in animals and man, pathology and treatment of the bite.

Hydrophobia.—Is a specific infectious disease which affects dogs, wolves, jackals, cats and other animals. It can be transmitted to man by the bite of a rabid animal.

There are two varieties of hydrophobia, viz., the *furiosus* and *paralyticus*.

Symptoms (in animals).—*Furious form* (in dogs).—After an incubation period of from three to six weeks (never under 14 days), the first symptom is a rise of temperature, restlessness, a high-toned bark, snapping at objects, sometimes a depraved appetite, excess of secretion of saliva, spasms of the throat, convulsions, followed by coma and death.

Paralytic form.—Early symptoms are the same as in the furious form—paralysis supervenes, the lower jaw drops, all the muscles of the body become weakened, and death ensues.

Symptoms (in man).—The incubation period averages about forty days—never under fourteen days. Nervous irritability is the first sign—rise of temperature—spasms occur in the respiration, mastication and deglutition muscles—delirium. Now follows a period when the reflexes are diminished; weakness, paralysis, convulsions, coma and death. The acute illness lasts from two to four days, as a rule; rarely a week.

Pathology.—No causal microbe has yet been discovered, but there is no doubt that the disease is caused by a specific micro-organism. The hydrophobia virus is found in the brain, spinal cord, medulla oblongata, cerebro-spinal fluid, salivary glands and saliva. It reaches the central nervous system by growing up the sheaths of the peripheral nerves: when it reaches the medulla, it spreads to the brain.

Treatment of the bite.—Cauterisation, either by the actual caustery or chemicals. If more than half an hour elapses after infliction of the bite, cauterisation is of little or no avail, except that it may retard the development of the virus, and so give more time for treatment. Suckling the wound is to be discouraged, as, if the patient has even a slight excoriation in the mouth, the virus may be implanted there, and thus convert the case from a mild into a severe one.

FOR THE VERIFICATION OF THE DIAGNOSIS OF HYDROPHOBIA IN AN ANIMAL AFTER DEATH.

Take a small portion of the brain or medulla, aseptically place it in a glass stoppered phial containing pure neutral glycerine, and despatch it to the Kasali laboratory, or proceed, as shown under, to inoculate a rabbit.

PASTEUR'S METHOD OF PREPARING VACCINE FOR INOCULATION PURPOSES IN THE TREATMENT OF PATIENTS BITTEN BY RABID ANIMALS.

The virus from the rabid dog or other animal is taken and passed through a series of rabbits. It becomes increased in virulence after several passages, and is then known as the "fixed virus of PASTEUR, or an exaltation of the original virus. This has now to be attenuated by drying the cords, which are taken from the dead rabbit, in jars in a dark room kept at a temperature of from 20 to 23 degrees C.—never below 20 degrees C, and never above 24 degrees C.

To inoculate a rabbit.—The rabbit is placed upon a table and put under the influence of ether; the fur is clipped from the top of its head with a pair of scissors and the skin carbolicised. An incision is then made, about half an inch long, in the middle line of the head, three-fourths of an inch or so behind the eyes. A trephine is applied to the exposed bone and a small circular piece of bone removed. The needle of the syringe containing the hydrophobia virus is now introduced under the dura mater in a slanting direction and $\frac{1}{10}$ c.c. injected. A compress of carbolicised absorbent cotton wool is applied to the part for a few seconds to prevent oozing and the needle withdrawn. A continuous suture is next applied to the skin wound, and the application of collodium to the wound ends the operation. All instruments used in the operation are perfectly sterile.

Subsequent progress of rabbit.—The animal remains perfectly healthy until the fifth day, when it has a slight rise of temperature. On the sixth day its saliva is infective. On the seventh day it shows commencing paralysis. This paralysis goes on increasing until the tenth or eleventh day, when the animal dies from the paralytic form of rabies. During the course of the disease no pain is experienced, and the animal eats well until the ninth day.

To remove the spinal cord.—The dead rabbit is fixed on its abdomen on a convenient table. The fur over its back is soaked in carbolic lotion. The skin is next divided down the centre from behind the ears as far as the pelvis and then dissected away. The muscles and spinous processes are removed with scalpel, scissors and forceps. The scapulae are dissected off and removed. The occipital bone is cut through with the forceps, as also the laminae of the vertebrae on each side, the bones being removed as they are cut through—the brain and cord are now exposed. The cord is next cut transversely across its lower end and lifted up, snared with a piece of sterile silk and the nerves divided as they are put on the stretch. As soon as the lower third is free, it is divided with scissors and hung in a sterilised drying bottle containing dried caustic potash at the bottom. The cotton-wool plug at the top is now affixed and the bottle placed

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in a dark room in a cupboard. Each jar is labelled with the date and number of passage. As each jar is placed in its cupboard, a test tube containing about an ounce of bouillon and inoculated with hydrophobia virus taken from the same cord is placed with it, in order to determine whether the cord is sterile: if this specimen remains clear, the cord is used for vaccine purposes: if there is the slightest turbidity about it, the cord is rejected.

These cords are kept drying for varying periods up to 14 days, according to the strength of the vaccine required. One rabbit is inoculated daily with hydrophobia virus, and as one dies daily, a constant supply of vaccine is maintained at the Institute.

To prepare the vaccine.—A small piece, about one centimetre long, of the required spinal cord is cut with sterile scissors and an emulsion made with sterile normal salt solution in a conical glass vessel. The piece of cord is ground down with the end of a glass rod, square and sharp at the end, into a paste, and sterile normal salt solution added to make 2½ c.c. When well mixed up the glass is covered with a sterile lid and the vaccine is ready for use. The weakest vaccine is made from a cord which has been dried for 14 days and is always used in first inoculations, and the strongest from a cord which has been dried for three days. The vaccines are prepared at a table in the dark drying room immediately before they are required for inoculating patients.

The way the inoculations are done.—When the vaccines for the day have been prepared, the glasses containing them are taken to a separate room and the inoculations thus carried out. The latest arrived patient is now ushered in, and he receives his first inoculation as soon as the operator has filled the sterilised syringe and dipped the needle in hot oil: the skin of the flank is then carbollised and a thick fold pinched up between the thumb and forefinger, and the needle inserted in a slanting direction in the centre of this fold. The vaccine is then injected, the needle withdrawn, and the seat of puncture immediately rubbed over with a carbollised pledget. The next patient is now called, and so on until the last patient has received his inoculation. The hypodermic needle must be sterilised between the successive injections when a number of patients are vaccinated in series. This is effected by dipping the needle into oil, which is kept at a temperature of 160° C.

The object of the treatment.—Is to establish an active immunity against hydrophobia before the virus growing up the peripheral nerves from near the wound of the bitten person has had time to reach the central nervous system. As a rule, the growth is a slow process and occupies a very variable time in different persons.

In the case of those bitten on the face, head or neck, the virus has only a short distance to grow before it reaches the nerve centres, and treatment, in order to prove successful, should be commenced early. In their case not a day should be wasted unnecessarily before coming for treatment, and for that matter, in any case where there is reason to think that the animal which inflicted the bites suffered from rabies.

Personal experience of treatment.—I was bitten on the left wrist, three punctures, by a rabid dog on the 12th March 1901 at Ranikhet. Information was sent to Nani Tal, where I was stationed, on the 18th March 1901; and on the 19th March 1901 I left for Kasauli, arriving there on the 21st March 1901. The same dog inflicted bites on three others subsequently to me. Before its death it exhibited symptoms of rabies, chief among which was spasm of the glottis. I append a table showing the number of inoculations which were given me:—

Consecutive number of inoculations administered.	With cords dried for days.	Seat of inoculation.
1st. day.	14	Left flank.
2nd. "	13 & 12	Both flanks.
3rd. "	11 & 10	"
4th. "	9 & 8	"
5th. "	7	Left flank.
6th. "	6	"
7th. "	5	"
8th. "	5	"
9th. "	4	"
10th. "	3	"
11th. "	7 & 6	Both flanks.
12th. "	5	Left flank.
13th. "	4	"
14th. "	3	"
15th. "	5	"
16th. "	4	"
17th. "	3	"
18th. "	5	"
19th. "	4	"
20th. "	3	"

The seat of inoculation causes no inconvenience, with the exception of, for a very brief duration after the inoculation, a feeling of itchiness about the puncture. There is neither pain nor rise of temperature, as is present, e.g., in inoculations against plague. The tissues about the seat of inoculation become thickened after the second or third day, and sometimes painful on pressure, but not to such an extent as to prevent one from getting about as usual. All this disappears soon after the treatment is completed. Patients are all out-door and attend the Institute daily. There are no restrictions in dieting during the course, but excess of alcohol must not be indulged in, and violent exercise not taken.

CONCLUSION.

Before concluding this paper, I have to express my deep sense of gratitude and thankfulness to the Director of the Pasteur Institute, Kasauli, Major D. SEMPLE, M. D., B.A.M.C., not only for his kindness in showing me over the laboratory and explaining different processes, but also for conferring immunity against hydrophobia in my case, and his uniformly kind treatment of each and every patient, of whatever rank, that attends the Pasteur Institute of India for prophylactic treatment.

DR. PRATT'S OPERATION FOR HYDROCELE.

BY MUNRU LAL, L. M. S.

Civil Surgeon, Jaloun, Oris.

BEFORE entering into the details of the operation invented by Major J. J. PRATT, L. M. S., Civil Surgeon in these provinces, I shall briefly recapitulate the various

methods of treatment heretofore recommended for hydrocele—a disease, although not a serious impediment to longevity, yet sufficiently inconvenient to make life unhappy, if not totally unbearable. When I commenced practice more than twenty years ago, the general treatment, and the one most usually adopted, used to be the “simple tapping;” but this only gave temporary relief, and the sufferer sometimes had to undergo operation every month, if not oftener.

Then followed injections within the sac of “tincture of iodine,” and a host of other “irritants” like “perchloride of mercury,” “port wine,” “carbolic acid,” “tincture of iron,” “iodoform,” chloride of zinc, “red precipitate,” and so on.

Every practitioner had his own favourite injection, but “tincture of iodine” was the one most in vogue. In the majority of cases so treated, the pain and fever that followed were simply alarming. Some of the patients fainted off soon after the operation, and then the treatment, after all, was not a perfectly satisfactory one, because about 50 per cent. of the cases ended in failure, and the case became worse than before.

The next advance over the “iodine treatment” was that of direct incision into the sac of the tunica vaginalis and the securing of its edges to the skin on either side, washing the cavity out with some kind of antiseptic lotion, and then to stuff it with gauze to make the wound granulate from the bottom; but this method was also found to be uncertain and required extraordinary vigilance and care on the part of the operator and dresser, inasmuch as that, if the stuffing was not properly done, a cavity, no matter how small, would be left and ultimately result in another hydrocele.

Some operators, instead of stuffing, used drainage-tube only, and this was about as unsatisfactory as the preceding one, and took as much, or perhaps longer, time.

Mr. LOCKWOOD, acting on the idea “no fire, no smoke,” invented a new and more satisfactory operation, which consisted in the cutting away of the whole of the parietal layer of the tunica vaginalis. This proved to be certain, and the sufferings of the patient were less, and if all went on well, the only inconvenience the man operated upon experienced was that of quietly lying in bed for a week or so before convalescence set in, to be soon after followed by complete cure.

This operation was first introduced into these provinces by Lieut.-Col. C. P. LUKIN, a most brilliant and skilful surgeon, and hundreds of cases have since then been treated in this manner by Drs. LUKIS, PRATT, ALPIN, CADELL, and some others, and a small monograph was also published by the two firstnamed gentlemen in 1897.

Major PRATT continued to perform LOCKWOOD's operation for some time after, and found in the course of his experience that the most troublesome difficulty to overcome was “the serious bleeding and oozing, and that to stop this a number of ligatures had sometimes to be used and left in. These (ligatures) often acting as foreign bodies set up irritation, resulting in suppurations, abscesses, &c.

On one occasion, while operating on a case of hydrocele, Major PRATT hit upon the happy idea of simplifying the whole procedure and doing away with the ligature altogether. This he accomplished by exposing the sac in the same way as for LOCKWOOD's operation, but instead of cutting away the tunica, he only made a small opening into the sac, caught hold of the testicle, brought it away, and in doing this he turned the tunica vaginalis inside out, thus placing the whole thing in the scrotum, closed the wound, and dressed it up as in LOCKWOOD's operation. The result was a complete success and was brought about in the way the operator had anticipated, that is, the inner surface of the tunica coming in contact with the connective tissue, and both acting like raw surfaces one on the other, would adhere firmly and obliterate the offending cavity and effect a radical cure.

Thenceforward, all our operations have been performed by incision and eversion, this being the name by which the operation is designated by the inventor.

Before concluding my remarks and describing the operation in detail, I must here add that in very large and chronic cases a modified LOCKWOOD's or a modified PRATT's operation would meet the difficulty; for instance, in some cases there is a direct communication with the peritoneal cavity and the hydrocele, and the fluid could be emptied out into the abdomen from the scrotum, and *vice versa*.

The first case of this kind that came under our notice caused us some anxiety—a LOCKWOOD's operation was performed in the usual way, but an assistant had to keep his fingers firmly pressed against the distended inguinal canal to prevent a hernia. After the operation a firm pad over the same region was applied with the same object. The man made an uninterrupted recovery. We kept him for about a fortnight after getting well under observation, and no trouble ensued. Since then we have had six more cases of the kind treated in the same way and with similar results.

There is another class of cases entirely different from the above, inasmuch that, instead of there being a direct communication with the peritoneal cavity, the part of the tunica vaginalis lying near and in the inguinal canal is distended, thinned and pushed up gradually into the abdominal cavity by the large quantity of fluid it contains. The process of emptying out this fluid into the abdomen and back again into the scrotum is obtainable, but with this difference, that the liquid in the abdomen does not go beyond a certain limit, and the swelling thus produced is circumscribed and irregular in shape, unlike the other, in which it is even and perceptible all over.

In a case like this, a combination of the two methods, PRATT and LOCKWOOD's, is the only means of cure, and the procedure is generally both troublesome and tedious, inasmuch as it requires the separation of the tunica from the connective tissue; the former is then gently pulled out of the abdominal cavity till the end is seen. The redundant mass of the tunica is then cut off and a little only left in the vicinity of the epididymis, where it is more vascular. There is oftentimes a lot of oozing and bleeding: all this must be stopped before closing the wound.

The same procedure would have to be adopted in cases of very large hydrocele (we have seen some cases of a respectable size, as Major PRATT humorously calls them; the largest we treated looked like a medium sized chatty, and contained over ten pints of fluid), because, if the whole of the tunica was left in the scrotum after incision and eversion, it is possible for some of the serous surface not to come in contact with the connective tissue, and if, after the whole thing had apparently healed up, the same serous surface started off secreting, a new hydrocele would form. This actually occurred in one case.

PRATT'S OPERATION.

After the usual preparation, a purgative overnight and an enema in the morning, the patient is placed upon the operating table, scrotum shaved, if it has not already been done, and washed with soap and warm water, then with an antiseptic lotion, the position is flat on the back with legs extended, an assistant grasps the scrotum behind and makes it tense, the operator then makes an incision in front in the middle line lengthwise, the size of the incision depends on the size of the tumour, the tunica is exposed throughout its whole length by few light touches of the knife, a small opening is then made into it with the point of the scalpel and enlarged by means of a pair of scissors, sufficiently to allow the operator to introduce his index-finger and thumb, the testicle is grasped gently and pulled out, and then the sac is everted.

All bleeding and oozing, of which there is very little, having stopped, the parts are washed with either perchloride of mercury lotion 1 in 5000, or carbolic lotion 1 in 40. The mass is then replaced in the scrotum and the wound closed by means of a continuous carbolised catgut ligature. Iodoform and boric acid in proportion of one to three is dusted over, a large soft and even pad of lint gauze and cotton wool (antiseptic) is made to cover the whole of the scrotal bag, with only the penis peeping out and well raised towards the abdomen; it is supported by means of a St. ANDREW'S cross bandage.

The patient is then placed in bed and a dose of quinine and opium given. For the first 48 hours he is kept on his back and fed upon milk alone. In the majority of instances urine is passed with ease in a vessel, but in some cases a soft catheter has to be used twice for a day or two. The dressings are not disturbed for three, four, five or even six days, and when first changed, if all goes on well, the wound is found to have united by the first intention, stitches removed, and the cross bandage replaced by a suspensory band if the patient is a careful person; but it is always better to keep up proper the bandage for a little longer.

(To be continued.)

PRINCIPAL DIAGNOSTIC SIGNS OF EXTRA-UTERINE FETATION.*

By GEORGE CUSCAGEN, L.R.C.P. & S., EDIN.,
Hon. Obstetric Surgeon, Women's Hospital, Melbourne,
Victoria.

SOME months ago I read before you a few notes on the

advantages of curdling the uterus in all cases of extra-uterine pregnancy where there was any suspicion of retained decidua. And you will probably think I am placing the cart before the horse when I tell you that to-night I intend reading notes on the symptoms of extra-uterine gestation. The fact is, gentlemen, I have seen a number of these cases lately, and I think I can throw a little light on the subject of diagnosis.

In whatever part of the genital tract the pregnancy finally enters, I think it is now an established fact that it commences in the Fallopian tube. The slightest dilatation of the tube causes pelvic pain, and this, I have noticed, is one of the earliest symptoms. Should the ovum slip up into the tube-abdominal region (ventral pregnancy), or between the folds of the broad ligament, becoming a mesometric pregnancy, the pain ceases—for a time, at any rate—until the tumour, from repeated hæmorrhage into its sack, becomes so large that it causes pressure on the neighbouring parts, and pushes the uterus out of its normal position. The pain is always confined to one side, and is of a throbbing character. Should the pregnancy take place immediately after a menstrual flow, the chances are that no other symptom, except pelvic pain, is complained of until the next flow is due. From my experience, I have come to the conclusion that the onset of the menstrual flow marks the first symptom of decidua separation. Should the patient escape an abortion at this period, the odds are greatly in favour of her going another calendar month before signs of decidual discharge make themselves evident. I think, then, that after pain decidual discharge is the next symptom, and should the pregnancy be high up, say tubo-abdominal, the rupture of the sack into the abdominal cavity takes place at the date at which the menstrual flow should appear. Many women, for various reasons, keep the dates of their "period," and it is by referring to these that I have discovered the coincidence that the abortion takes place at one of these times.

On examination, a tumour on one side of the uterus, and, on bimanual palpation, a distinct pulsation can be felt by the finger in the vagina. This pulsation conveys a well-marked bruit, aneurismal in character. Whether any temporary cessation in child-bearing to the otherwise healthy woman causes a change in the tube, it is a notable fact that the majority of extra-uterine gestation occur in women who have not borne children for several years.

Given, then, the case of a patient who has missed a period, who has not had a child for several years, who complains of persistent pain in one side of the pelvis, we would naturally suspect the condition of extra-uterine gestation. Should sudden collapse and severe spasmodic pain supervene, then the diagnosis is absolutely established. Hæmatocolpinx, salpingitis, with some fluid in the tube, an inflamed dermoid cyst of the ovary, an ovarian tumour with a twisted pedicle, an hydatid degeneration of the villi and chorion, or even an appendicitis, might be mistaken for an extra-uterine gestation; but I think that, by paying attention to the symptoms I have described, a reasonable diagnosis may be made on the theory of exclusion.

* Reproduced from the *Australasian Medical Gazette*.

A MIRROR OF PRACTICE.

ALLEGED CASES OF SNAKE-BITE.

By MILY. ASST. SURGN. J. C. GILLMON, L.S.A., LOND.

House Surgeon, Milford Hospital, Dacca.

CONSTABLE RAM NARAIN SINGH, while on duty on the 22nd February 1901 in the western part of the town at 8 P.M., suddenly felt a sharp prick on the fourth left toe, for which he was unable to account; half an hour later, at the police station, he mentioned the occurrence to his comrades; they examined the part and found, or fancied they found, redness with two distinct punctures, and at once concluded the case to be one of snake-bite, and told the man so. Hearing this he fell back suddenly, becoming apparently totally unconscious. His friends, alarmed at his condition, placed him in a gharry and brought him to hospital.

When I saw the man he was lying on his back perfectly still, and to all intents and purposes unconscious to all that was going on; the eyelids were closed and the pupils dilated and acting to light; body warm; temperature normal; breathing easy and natural; pulse full and regular, with foam at the mouth.

As a precaution, before making a closer examination, a fortieth of a grain of strychnine was injected in the vicinity of the supposed wound. The toe was next examined, but neither punctures nor swelling could be detected. The eyelids were again opened, and some slight resistance was noticed and the eyes inclined somewhat upwards, which led to the belief that the man was not quite so insensible as he appeared; on being called by name, he feebly, though indifferently, responded, so much so that one remained in doubt as to whether any sign of recognition had been made; however, to dispel any doubt, a weak galvanic current was applied to the hands and feet, but without any visible effect; a stronger current was tried with better results, and in a remarkably short space of time there was a complete return of the senses, and the man was able to answer all questions rationally and well.

This case was rather puzzling at first; the frothing at the "mouth" (which I may here add was due to a dose of stimulant mixture which was given before my arrival and not swallowed) and the apparent total loss of consciousness gave one the idea that the symptoms were incipient, that the poison had not had time to develop; but as time advanced and there was no change for the worse in his condition, a more favourable view of the case was taken and suspicion aroused as to the genuineness of the symptoms; there was no reason for the man to feign, so it must be assumed that his condition was the outcome of pure fright.

Two other cases of a similar nature came under my observation at different periods previous to the foregoing—one was bitten on the finger and the other on one of the toes; in the first the snake, which was said to be of a large size, was seen by the patient and allowed to escape;

their symptoms were those of fright, as they fully believed there was no hope for them; a little careful watching for the development of more serious symptoms proved fruitless; the administration of a stimulant and a few reassuring words soon allayed all anxiety.

I send you these reports, as I believe that many of the so-called recoveries from snake-bite one hears and reads of are cases resembling the foregoing.

REMOVAL OF HYPERTROPHIED SCAR TISSUE BY MEANS OF THE RONTGEN RAYS.*

By L. HERSCHEL HARRIS, M.B., CH.M.,

Hon. Skiagrapher, Sydney Hospital, Australia.

S. G., *ætat* 19, female, was operated upon for suppurating tubercular glands of the neck fifteen months previously, and as a rather extensive dissection was necessary, the skin incision made was consequently a large one. Some months afterwards a cicatrix formed, which at times gave rise to neuralgic pains, and this, together with a contraction of tissue which at times gave rise to neuralgic pains, and this, together with a contraction of tissue which resulted, caused the patient to hold her head on one side. This condition gradually increased, and an overgrowth of tissue in the region of the cicatrix began to appear, and steadily increased, so much so that, when the patient presented herself at the Sydney Hospital, the hypertrophied tissue was in several places half an inch above the healthy skin.

Thinking that the x-rays might play an important part in causing such tissue to be absorbed, I resolved to try it in this case, and the patient having consented to the treatment, the first sitting was arranged for 24th October 1900. A mask of thin lead foil was employed, with an opening in it corresponding to the scar, and this was closely applied to the face. The tube employed was a soft one, of the bi-anodal pattern, placed at a distance of five inches from the part, and a current of six amperes was used. Each sitting lasted ten minutes. The treatment continued until 11th January 1901, two intermissions of seven and fourteen days respectively having occurred, due to inflammatory trouble which resulted.

After seven consecutive sittings, the patient noticed that the scar had become more supple, allowing thereby more freedom in the movement of the head. After fifteen sittings of brown pigmentation had appeared on either side of the scar, whilst the latter had become red, slightly swollen and inflamed. At this stage 15 per cent. boracic lanoline ointment was prescribed, and the patient was instructed to apply this daily for one week, during which period the rays were not applied. At the end of the week, when the patient again presented herself, the inflammation had subsided, the scar tissue was considerably diminished in size, and at the same time this tissue, which originally appeared like firm, white, fibrous tissue, had now become vascular, and numerous small branching vessels could here and there be seen.

* Reproduced from the *Australasian Medical Gazette*.

The treatment was then resumed, and after eighteen sittings the pigmentation and inflammation again occurred, and to a slightly greater extent than previously. The sittings were then discontinued. The boracic ointment did not answer so well this time, and equal parts of zinc and carbolic ointments were substituted for it, with very gratifying results. A fortnight afterwards the inflammation had totally subsided, and the hypertrophied scar had completely disappeared, leaving only the mark of the skin incision.

The result of this case was eminently successful, for in the first place the cosmetic effect was greatly enhanced; secondly, the movements of the head and neck were free, the head not being drawn to one side as originally; and thirdly, the neuralgic pains which the patient had so often complained of had entirely disappeared.

AN INTERESTING BREAST CASE.*

BY A. G. E. NAYLOR, L.R.C.P. AND L.R.C.S., EDIN.

Victoria (late of Calcutta).

Mrs. J., aged 35, consulted me for abscess of the left breast a month after birth of her only child. Twelve years ago she had a "tumour" removed from the same breast, when the wound healed about a week.

I opened the abscess freely, one of my incisions passing across the lower end of the scar left from the cut made twelve years before. When dressing the breast two days after, I had opened it on removing my large drainage tube; something that looked like a smaller tube came into view, and with some difficulty a well-preserved rubber tube about an inch and a half long, and one-fifth of an inch in diameter, was withdrawn.

I wrote to Dr. —, who operated for the "tumour" — a surgeon with a reputation in Victoria — describing the case, and asking him *how* and *why* a drainage tube came to be there when his wound was supposed to and did heal by first intention. He replied that he remembered the case, and that at the time he and his assistant thought the tumour was a scirrhus. He avoided answering my question as to the presence of the tube, but emphasised the fact (and congratulated himself upon it) that his dressing must have been thoroughly aseptic.

A foreign body in the shape of a drainage tube is not often found in a breast; hence the publication of this case.

N. B.—When I received the surgeon's letter in reply to mine, I was not wholly surprised at the how and why of the presence of the tube after his operation, for his *envelope* advertised his "Private Hospital," and his letter contained the extraordinary statement that the tumour he had removed through a comparatively small incision was thought by him, and taken for granted, to be a scirrhus mammae.

* Reproduced from the *Australasian Medical Gazette*.

Indian Medical Record.

19th June 1901.

THE INCINERATION OF REFUSE IN CALCUTTA versus RECLAMATION OF MALARIOUS MARSH LANDS.

ON the 1st June 1896, we wrote the following "editorial" in the *Indian Medical Record* on the above subject. We now commend its consideration to the Municipal authorities of Calcutta, as the subject of the incineration of refuse has again cropped up for discussion—

ATTEMPT TO ABOLISH THE PRESENT SYSTEM OF DEALING WITH REFUSE IN CALCUTTA.

With an energy and persistence characteristically his own, the Health Officer of Calcutta once more seeks to induce the Municipality of this city to reject its present plan of utilising its refuse for the reclamation of that great marsh land known as the Salt-Water Lakes, and to adopt a wholesale system of incineration in its stead. We had thought that the utter failure of the Entally-Dharamtala Street destructor, with the unsavory history of this experimental folly, was a thoroughly wholesome and edifying object-lesson to the Health Officer and to his municipal colleagues; but a period of six years seems sufficiently long in our Health Officer's opinion to obliterate the recollection of sad experiences, for he now seeks to revive the exploded theories regarding the efficiency of modern Western methods of refuse combustion as applied to the garbage of an Eastern clime.

ENTALLY INCINERATOR NOT A SUCCESS.

The Health Officer would even claim success for the experimental incinerator of Entally, whose very smokeless top looks down from its monumental height, a picture of failure and reckless folly. After laboriously describing the differences between Western and Eastern city refuse, the Health Officer in his holiday memorandum says:—

"The experimental incinerator erected at Entally proved beyond a doubt that Eastern refuse was combustible. It proved that the refuse of Calcutta could be burnt even during the rains as completely and as well as the refuse in Western towns; that during the most heavy rains, when the refuse was saturated with moisture, a very slight expenditure of fuel was all that was necessary; and the clinker and ashes obtained from the incinerator furnished valuable material for road repairing and tank-filling."

Now if this was even approximately correct, why does the tall HARRINGTON chimney cease to belch out its declared innocuous fumes to-day? Simply because they were *noxious*, and became so unbearable a nuisance, that the public outcry against its continuance caused the municipality to stop its use. The loss to the Corporation by this little experience was close on a lakh of rupees!

GORAGATON INCINERATOR NOT A SUCCESS.

The next experiment in incineration was the HARRINGTON destructor, erected at Goragatona, a suburb of

Calcutta, and if we remember rightly, there have been grave complaints concerning its working from time to time. However, it has been in use for some years, with the following results, reproduced from the Health Officer's Report :—

"The Goragatcha Incinerator, which has been working in the suburbs since the 14th August 1892, was erected on the understanding that a fume cremator should be attached to it. This special furnace, provided by Mr. HARRINGTON, proved to be useless, its temperature never rising above three or four hundred degrees Fahrenheit, and, as I pointed out at the time, the cremator was not constructed on proper principles. The burning of the refuse, however, was so successful, producing no noticeable nuisance, that the provision of a special crematorium was never insisted on, and the incinerator has for the past three years and-a-half been burning a daily average of 150 cart-loads, or 66 tons, of refuse collected from the districts of Watgunge, Kidderpore, and Alipore, and could burn more if a larger quantity of refuse was available."

Theoretically, this destructor is not perfect according to the Health Officer's views, yet *practically* it is so! Is not this a remarkable fact? If it proves anything, it proves, geometrically, that the Health Officer is not an unerring guide, and our Municipal Councillors ought to think well before they commit themselves to any lavish scientific experiments upon his recommendation. It remains to be proved whether the above statement by the Health Officer is not as incorrect as his recent commendation of the obsolete monumental folly of Entally and Dharamtala.

INCINERATION *versus* RECLAMATION OF MARSHES.

"THE LIVING EARTH, OR INCINERATION *versus* RECLAMATION," is the title of an excellent article on domestic sanitation by Dr. GEORGE VIVIAN POORE, of University College, London, in the *Lancet*. It forms part of an address delivered before the Sanitary Congress recently held at Brighton. Our Calcutta Municipal sanitarians would do well to make a special study of the important topics with which this dissertation deals, both lucidly and ably. They will then probably not be in too great a hurry in deciding the serious problem of disturbing the present well-arranged plan of reclamation of the Salt-Water Lakes, with all the far-reaching agricultural benefit of depositing the refuse of this large city on the pestilential and malaria-laden swamps which now can boast of partial obliteration, but which future years will see entirely transformed into a vast food-supplying and health-securing area of fields and garden which the infatuated supporters of "incineration within city limits" would not only banish the possibility of, but give us in its stead a legacy of probable starvation in the dim future (according to Dr. POORE's theory), and a present gift of malodorous germ-laden smoke, with its inevitable sequences of disease and mortality. Here is an extract from Dr. POORE's address, which has a direct and vital bearing on the question of "Incineration *versus* Reclamation." :—

"From every point of view—scientific, sanitary, moral, economic—I feel strongly that dwellers in the country should take warning by the towns. They should revert to the cleanly and decent habits of our forefathers, and

keep the sanitary offices away from the main structure of the house, and not, as is the filthy custom of the present day, bring them almost into the bed-rooms. They should keep solid matters out of the house drains, and see that they are decently buried in the living earth every day, and they should replace the drains by gutters, and filter all the household slops by applying them to the top of a different piece of cultivated ground every day. Whether an ordinary watering-pot or a tank upon wheels drawn by a horse be necessary for accomplishing this latter object, will depend upon the size of the establishment; but only those who have systematically pursued this plan, as I have done, can know the vigour which is imparted to hedge-rows, shrubberies, fruit trees, or forest trees by a tolerably frequent dose of household slops. There is no difficulty in doing this, provided the will be present—the will that is to combine your duty towards your neighbour with an act which is profitable to yourself."

OUR DUTY TO THE SOIL AND ITS PRODUCTS.

"The question of our duty to the soil is fundamental in sanitary matters. If we starve the soil and turn our fertilising materials into the sea, we may rid ourselves (though this is doubtful) of filth diseases for a time; but it is by no means doubtful that we shall ultimately replace filth diseases by those diseases that are bred of starvation. How soon this will happen no one can say, but that it will happen eventually seems to me as certain as is the axiom *ex nihilo nihil fit*. Do not let us commit the great blunder when dealing with this national question of forgetting that the life of a nation ought to be measured by centuries. Do not let us make a suicidal use of a paltry fifty years' statistics, and because the figures of the last decennium happen to be favourable, conclude therefrom that all our sanitary principles are right. The Chinese principle of returning all organic refuse to the soil is, there can be no doubt, absolutely sound. The Chinese details may be filthy and susceptible of improvement. In this country the details of our domestic sanitation are refined, elegant, and ingenious. It is the principle subserved by these details which I believe to be absolutely rotten. The main problem of sanitation is to cleanse the dwelling *day by day*, without fostering starvation. This can only be done by returning all organic refuse to the soil, and the perfecting of the details by which this duty is to be done is the most important work of the modern sanitarian. This question has an immediate personal interest for all who derive their income from the soil. I feel sure that the clergy would do well to enforce by example, as well as by precept, the old injunction, to replenish the earth and subdue it. If they do not, they must expect to go without their tithes. Improvement in this direction is only to be attained by rousing the public conscience. So soon as the majority of individuals is impressed with the fact that it is wicked to foul our streams and starve the soil, and that our individual responsibility does not end, even though the fouling and starving be done by a board, so much the better will it be for the public health and national wealth."

DANGERS OF INCINERATION.

These remarks lead us to a reconsideration of the dangers of the incineration of refuse within the city limits. Notes of warning are being sounded everywhere against such innovations. English cities, in which the process has been tried, complain bitterly of the offensiveness of the smoke. The *Lancet*, the leading medical journal of Great Britain, makes the following remarks, which ought to be of serious import to the Municipal Commissioners in their final deliberations upon this subject :—

"The failure of destructors to do their work without nuisance; the smells of brickworks where house-refuse and cinders are used as fuel; the tips of filth at canal wharves; the carriage of slaughter-house refuse and similar stuff through our streets, together with smells which are, rightly or wrongly, attributed to sewers, all come in for a share of condemnation, and the universality of the complaints speaks volumes as to the truthfulness of the allegation that there is nuisance, whatever its source." It further remarks—"It is difficult to speak with any certainty, but there is little doubt that sore-throat is at times the result of the inhalation of such foul effluvia; and sore-throat tends to become infectious, and there are few who would now draw a hard-and-fast line between prevalences of infectious sore-throat and of diphtheria." Probably those who now so enthusiastically press for the adoption of destructors in this city will honestly pause and consider whether it is to the best interests of the inhabitants that their hobby should be forced upon us at any and every cost.

A SERIOUS PROBLEM.

The Municipal Commissioners are certainly face to face with one of the most serious sanitary problems that has ever been brought under their cognisance. It behoves them to solemnly, critically and honestly weigh every item of evidence for and against such an innovation, and certainly we think, in the interests of the people, the benefit of all doubt ought to be given as against a new and insufficiently tried experiment. The present attempt to escape condemnation of the plan of incineration by an additional elevation to chimnies, and by the introduction of heat chambers to destroy the germs in the smoke, is only another method of endeavouring to "ride a hobby-horse to death." Raising chimnies and inserting baffling walls and hot cells will no more abate the nuisance in its insidious morbid power than the partial boiling of mealy meat would prevent fatal parasitic disease.

SMOKE PRODUCTS OF INCINERATION.

Germ-laden smoke carried ever so high must gravitate downwards, or Nature's laws must be reversed to suit incineration, and it is only a temporary postponement of one's doom if typhoid and diphtheria germs floating at an altitude of 250 feet finally sink slowly into the stratum of our respiratory air. Can the most astute sanitarian, or the most vigilant overseer, guarantee that the heated cells of the incinerator shall perpetually be reserved at the fixed high temperature which science has failed to definitely demonstrate is calculated to destroy every form of bacillary life?

DOES HEAT DESTROY GERMS?

May we not ask, in the present uncertain and unsettled state of bacteriological research, what is the temperature in which the awful bacillus ceases to live? Recent observation goes to prove that the bacterium of certain diseases is not destroyed in boiling water, and it is known to thrive in fuming nitric acid! How will our incinerator crew face these facts? The heat chamber is nothing but a theoretical delusion, and we venture to predict, with our experiences of the neglect and carelessness of municipal underlings, that the whole process, if passed and inaugurated, will prove an utter and disgraceful failure, bringing its promoters a rich harvest of chagrin and contempt.

POINTS IN SUCCESSFUL INCINERATION.

Before deciding on the possibility of working an incinerator successfully, the following points should receive serious consideration :—

- (1) That the statistics of the quantity of refuse alleged to be destroyed each day are absolutely true.
- (2) That the refuse experimented on is *not selected* or picked. That in reality it consists of all the ordinary materials found in such heaps, *viz.*, dead dogs, cats, rats, birds, garden and kitchen refuse, &c., &c.
- (3) That the heat chambers register a certain fixed temperature before the work of burning commences, and that such temperature is steadily maintained.
- (4) That the fires are fed slowly.
- (5) That the resulting ash proves the perfect incineration of organic material, and that independent and reliable chemical and microscopic tests prove its innocuousness.
- (6) That such ash, which contains hurtful caustic alkalies, is not exposed to the possibility of being drifted about by the prevailing winds, and thus giving rise to serious throat and eye diseases.
- (7) That soddened refuse, such as may be expected to be treated by burning during a long monsoon season, is thoroughly, quickly, easily, and inexpensively burned.
- (8) That the smoke emitted from the chimney, at the point where it is ejected into the surrounding air, is proved by undoubted chemical and microscopic tests, to be free from every form of deleteriousness.
- (9) The proper and safe measures are adopted for the collection and stowage of the huge quantities of refuse prior to burning, and to question whether the accumulation of such foul masses of decomposing and putrid animal and vegetable matter in such close proximity to human habitation for hours together does not present a nuisance and a menacing danger gigantic enough in itself to abolish the very thought of adopting an incinerator anywhere near the city.

HOW THE HEALTH OFFICER ARGUES IN FAVOUR OF INCINERATION.

The Health Officer, in his present seemingly well-argued effort to captivate the common sense of our civic governors into accepting his plausible pleas for a wholesale system of incineration, says :—

"In conclusion, I would recapitulate the advantages to be derived from the system. They are a vast improvement in the conservancy, and therefore cleanliness, of the town, with its accompanying benefits to the health of the city; the removal of an injurious and almost insupportable nuisance to which the residents of Circular Road are subjected; the abolition of platforms, wagons, and railway, which, besides disfiguring the finest and broadest street in Calcutta, costs for maintenance and working over three-quarters of a lakh of rupees per year; with the abolition of the railway, the removal of one of the chief obstacles to Circular Road becoming a good and healthy residential street, with consequent increase of value of property in the street and a high return to the Corporation in municipal rates; the opening up of a new and broad thoroughfare running eastwards from the Circular Road and almost continuous with Dharamtala, which is now occupied by the railway in its course to the Salt Lakes; and abolition in a few years' time of the offensive smell which pervades Calcutta on sultry nights, when the air is still or the wind is eastward, and which is due to the enormous number of tons of decomposing filth which is being deposited at the lakes, and which in its soakage by the rains and drying by the sun, before it is converted into earth and used for agricultural purposes, is a hotbed of disease; and, lastly, the supply of excellent material in the ashes and clinker obtained in the burning of the refuse for the filling up of the foul tanks of Calcutta, which, owing to scarcity of suitable earth, are left to add their share to the unhealthiness of Calcutta."

ARGUMENTS AGAINST INCINERATION AND IN FAVOR OF RECLAMATION.

It is hard for any reasoning and thoughtful person who studies the subject to understand the necessity for this so-called incineration. The refuse, as at present disposed of, is reclaiming and increasing enormously in value marshy and worthless land that has been, since the creation of Calcutta, an abiding source of evil. Not only does the new system poison, with harassing and deadly effect, the residents of town and suburbs, but it *deprives the city of the power to further reclaim these marshy lands, a portion of which has already, by these means, been rendered so valuable.*

DANGERS FROM DISPOSAL OF NIGHT-SOIL BY PRESENT METHOD.

The evil at the Salt-Water Lakes is not caused by the refuse thrown on the surface of the ground, but by the night-soil which is put into the main sewers, and from thence into the channels of the Salt-Water Lakes. These tons of night-soil, which are daily bumped or thrown into the open cut before they can reach the sea-face, meet the in-coming tide to set them back again, and constantly oscillating backwards and forwards, with portions left on the banks of the channels exposed to the sun and low water, and again wet at the rise of the tide, are most admirably adapted means for creating disease.

HOW NIGHT-SOIL OUGHT TO BE DEALT WITH.

No night-soil should be put into the sewers. Let a system of pipes, preferably steel with glazed lining (as being strong), be laid through all the main sewers, and to these all house and night-soil depot connections be made. The city be divided into blocks, with an air-tight central compartment to each block. These compartments should be connected with one main pumping station, where the retorts are placed in which the water is distilled off and

the remaining portion converted into poudrette. No system of drainage, especially in a tropical climate, is safe, where pressure is allowed to exist, or where excrement is allowed to be exposed to alternate heat and moisture. Witness Rangoon, and the utter failure of the Shone and Ault system; and why? Leaks are unpreventable, and where a pressure system is used, a leak forces into the houses and streets whatever noxious and injurious gases have been formed in the sewers. Where a vacuum is used, a leak can have no deteriorating effect, because it draws in air instead of expelling gases.

QUESTION OF COST.

The question of cost is not entered into, that is of minor importance, although in all probability the expenditure would be at least partially recouped; but even supposing it were not, the reduction of sickness, the saving of valuable lives that are at present (from the statistics of the Health Society) unnecessarily sacrificed by the laches of those who are the appointed custodians of the public health, would of itself be ample recompense. It is the interest of the public themselves—of the fathers, sons and brothers, for the sake of the families who look to them for their daily bread—to reduce sickness and death, which plunges whole families into distress, and necessitates relief from friends and strangers. It would be cheaper for those in health to subscribe towards this than to have to pay to support those left destitute.

WASTE ON INCINERATORS.

The Commissioners have, without due consideration of disinterested advice given them, and led away by the specious pleadings of oppositionists and those personally interested, already thrown away over a lakh of rupees on these worse-than-useless furnaces, which, even if they honestly do what they are said to do, are a loss in every way. Their up-keep alone in repairs will cost more than the maintenance of the whole of the present system, when they have to do the regular work of the town. The money already spent would have much better been devoted towards closing in the open cut and the erection of another pumping station for sewage a couple of miles nearer the sea-face. But why any municipality should be allowed to poison any waters—river or sea—is a mystery, and the Government should step in and compulsorily prevent it.

It is to be hoped that the lay journals of this city will evince sufficient interest in such a grave matter and promote a thorough investigation of it.

DELIRIUM OF INSANITY.

DR. HIRAM ELLIOTT, M.D., of Manhattan State Hospital, New York, contributes an article full of interest on the subject of The Delirium of Insanity to the columns of the *New York Medical Record*. We call the essentials. After explaining the manner in which the normal mind is thought to be developed, the writer proceeds to indicate how, out of the sensations received by the brain, consciousness evolves the emotions and the intelligence, how these being concentrated upon the attainment of a certain object constitute a desire, and this in turn, when of sufficient

intensity to force its discharge through the motor centres, results in what is termed a volition. This was more directly applicable to objective sensations, but also referred to the vague sensations within the body termed subjective, which played an important part in the production of the feelings, such as illness and wretchedness. Normally, however, a man might be said to be in a condition of intellectual activity and emotional indifference. The term insane delirium might be defined as prolonged deviation of the intelligence from the normal, due to brain defect or disease, the chief phenomena manifested being incoherence, irrelevance, illusions, hallucinations and delusions. Pathological changes in the central nervous system manifested themselves first in disordered sensations, which might be painful and distracting, and the seriality of the sensory images might even be disturbed. This lack of proper sequence in sensory images was a frequent cause of incoherence. Another element in the causation of delirium was a decrease in the availability of experience as a standard of comparison. Even in weariness or anger the store of our knowledge frequently failed us, and in fright might desert us altogether. In brain disease this reduction was one of the first things to happen—consciousness seemed no longer able to force its way readily along its accustomed paths. The chief points of the ideational apparatus where anomalies arose were thus, first, in the sensory nerves and their peripheral and central expansions. Stimuli might be abnormally originated, or they might be improperly transmitted to, or received in, the sensory centres: second, in consciousness, which might be too active, pre-occupied or in abeyance: and thirdly, in the quality and quantity of experience available as a standard of comparison. Failure to receive and interpret sensory stimuli correctly resulted in illusions. These stimuli were always afferent. The sensory centres were never, and could never be, stimulated to the production of true sensory images excepting from without, and their psychical stimulation to this effect was impossible. Illusions were presentative—representative errors, and falsity might exist in one or both of these elements. Sometimes a trifling stimulation of one of the senses resulted in a most elaborate illusion, involving other special senses as well. There the representative element was much in excess of the presentative. Sensory image defective, attention weak or pre-occupied, memory incorrectly or ineffectually stimulated, cognition false—such was the usual skeleton of an illusion. Illusions thus were false presentative—representative cognitions arising out of misconstruction of sensory stimuli. And if these rested on a pathological basis and were allowed a dominating place in the mind, they constituted an element of insanity. Every insane person had illusions, and those of hearing and sight stood first, these being the two chief channels of sensation, and especially in acute insanities, e.g., alcoholic patients were very prone to illusions of hearing and sight. A noteworthy phenomenon sometimes seen with auditory illusions in recent cases was a change in the patient's voice. It became like that of a person partially deaf, and was lacking in timbre and altered in pitch. This arose out of disorder of the sense of hearing, indirectly through which the

tones of the voice were registered. Illusions of taste and smell were next in frequency, and depended chiefly upon alterations of the mucous membrane and secretions of the mouth, throat, and nose. The illusions usually referred to poisoning or befoulment of food, and explained why many patients refused to eat, and afforded a valuable therapeutic hint. Visceral, tactile and muscular illusions also formed an important part of the delirium of insanity. Here the presentative element was usually more at fault than the representative. Hallucinations were representative errors, entirely of psychic origin, and were constructed out of vestiges of former sensations. They were psychical images believed to be sensory. The images themselves might be integral representations, and the error consisted entirely in a continued and intent contemplation rendering them abnormally distinct and in the falsity of their origin. This was notably exemplified in those patients who claimed that they heard their own thoughts, and the phenomenon of talking to self, so common in patients with weakened self-control, was accounted for in this way. Three factors at least entered into the production of an hallucination—weakening of object consciousness, intensification of subject consciousness, and reduction of comparing power, especially in melancholia were these factors marked and hallucinations correspondingly common. Fears and suspicions originated with the painful emotional state, and the confused sufferer, no longer able to distinguish clearly what he dreaded from what actually happened, referred all to sensation. Fragments of former sensory images were selected from experience, and united sometimes in the most incongruous way, until an elaborate vision was constructed. This became comparatively more and more distinct, until its vividness exceeded that of sensation. Hallucinations differed intrinsically from illusions. They were fictions, whilst the latter were distortions. Illusions were false mental images arising out of sensations. Hallucinations were mental images falsely referred to sensation. Illusions at all fixed depended on change in the nervous mechanism, and might be unilateral; hallucinations had no physical relations at all. Inattention alone often accounted for an illusion, but the belief that the special senses were operating, when they were not stimulated at all, implied a serious involvement of consciousness and judgment. Illusions were exceedingly common: hallucinations were rare and much less definite in character and outline. As to relative frequency, hallucinations stood in about the same order as illusions, and for the same reasons. Those of hearing and sight came first, and in the order named. Auditory and visual images were much more definite than those of taste, smell and touch, and were therefore more easily called up. In fact, sounds and forms were not only necessary for the easy expression of thought, but vestiges of them formed the chief part of the groundwork of the mind, and normal mental development and activity were hardly possible without them. As to contents, illusions and hallucinations were very similar. In fact they were frequently found together, the one shading into the other so gradually that it was often very difficult clinically to tell where illusion ended and hallucination began. The depressed and alcoholic patient interpreted his retinal

disturbance as snakes and rats. The quiet, cheerful, organic dement saw kittens playing on the carpet from the same cause. Illusions bore a close relation to the patient's thoughts and habits previous to his alienation, as when the insane criminal saw officers of the law pursuing him, or heard his crimes rehearsed in his ears. Delusions were re-representative errors. They were neither misinterpretations of sensation, nor false ideal images referable thereto, and while they frequently had their origin in illusion or hallucination, they might arise independently of either. They were faulty products of reason, defective abstractions, false beliefs regarding the personality as a whole. Beliefs were ultimate conclusions, and their soundness depended upon the character of the more concrete elements from which they were derived, and upon the method of their deduction. They were never perfect even in health, for even under the most favourable conditions, and after the most careful deliberation, perhaps all beliefs contained error, and many were absolutely wrong. But this error was not delusion. Even insane persons held many erroneous beliefs which could not in any sense be regarded as delusions. The dement might assert that Christmas came in summer, but that was only a bad guess. His memory was at fault. The essential condition in insanity was the falsification of the ego. It was only those abstractions into which the concept of this false ego strongly entered that constituted delusions. A morbid egotism showed itself everywhere. The patient became a laughing-stock to himself: he was deluded. Thus a delusion was a false belief of an insane person arising out of, and referring to, changes in his personality, due to brain disorder. As the ego was depressed or exalted, so were the corresponding delusions restrictive or expansive; and as the personality was reduced to that state of indifference to which all insanity tended, they gradually lost character and faded away. Depression characterised the onset of all forms of mental alienation, sometimes amounting at once to almost total obacuration of the intelligence, as in acute stupor. But ordinarily the process of mental alienation was a gradual one. A morbid ego was developed, whose essential quality was unworthiness. Cerebral energy was transformed wholly into mental pain, and any excess might issue as restlessness, or burst through all restraint in the form of agitation. Illusions and hallucinations were frequent: delusions rarer and not essential. This was the type of restrictive delirium. Many persons were, however, incapable of prolonged depression. Beyond a certain point, the very influences that depressed became exaltants. The cerebral circulation was released from its inhibitory power and resulted in an excess of cerebral energy which was readily transformed into extravagant thought and action, and the patient believed he had risen superior to his former self and to his fellows. In some cases the inhibition was lost very soon, and the functions of brain and body ran riot, nervous energy was rapidly exhausted, the temperature rose, nutrition failed and emaciation ensued. Sensation was perverted, illusions and frequently hallucinations occurred and fragmentary delirious concepts followed each other in the wildest confusion. Appreciation and consciousness were soon lost, and any flaring up of the dying vital energy relieved itself in

purposeless action, and meaningless muttering or shouting. The patient sank into a typhoid condition and death usually closed the scene. Such was the type of the delirium of exaltation. Most cases of mental alienation did not, however, approach either of these extremes. The personality was transformed without violence. There was no sudden arrest of cerebral activity. Relief was afforded in perverted ideation, and that degree of mental calm necessary for the operation of reason, at least in an imperfect way, was preserved. Illusions and hallucinations occurred, but it was here alone that the conditions were favourable for the development of the clearly defined delusion. Because of the greater stability of the underlying pathological conditions, delusions were less fleeting than in the acuter types, and tended to persist without change. Entering the mind insidiously, they developed along with it and became an intrinsic part of the mental fabric. The tendency of delusions to arrange themselves around some central false idea was known as systematisation. The more fixed they were, the greater this tendency became. The significance of the systematised delusion depended on the fact that, with the reason still active and in a time of mental calm, the mind deliberately adopted it as an intrinsic and active element of itself. As to contents, delusions usually coincided with the patient's prevailing emotions, and, as a rule, bore a pretty constant relation to his temperament in health. They might refer directly to his own person, or relate to the conflict which, of necessity, soon arose between the alienated and his environment. Expansive and restrictive delusions were very frequently found together, and especially was there a tendency for grandiose ideas to arise as complementary to those of persecution. It was for the relief afforded thereby that the patient who was harassed by all sorts of persecutions maintains that he is superior to his enemies, and that these annoyances were directed toward him because of his excellence. Thus we might have falsity along the entire length of the cognitional series—false sensations, illusions, hallucinations, delusions.

THE DUFFERIN HOSPITAL FOR INDIAN WOMEN IN CALCUTTA. HOW TO REACH THE PURDA WOMAN.

A LENGTHY correspondence has been carried on for the past few weeks in the Calcutta daily papers concerning the Dufferin Hospital for Indian Women. An article appears in our correspondence columns which fairly explains the position of affairs, and the writer suggests certain remedies. All the present correspondence tends to the positive opinion that hospitals and dispensaries must be opened and kept going for purda-women. The experience of Calcutta is that purda-women don't want and won't have hospitals and dispensaries. Surely the opening and expensive fitting up of that palatial hospital in Harrison Road, with all its impenetrable screens and other appurtenances to render purda-women secure against the vulgar, scrutinising gaze of men, with the history of its complete failure, was warning enough. Such a lesson, such dearly bought experience, winding up with the sale at a dead loss of the hospital, ought to have opened the eyes of

those responsible for the Fund to the fact that purda-women will not leave their homes to enter a hospital. To leave one's home on a visit to hospital, means, to purda-women, all the agonising fear of exposure to public view. Only those who are intimately acquainted with the sensitive feelings of our Indian fellow-subjects in this regard, can estimate the insuperable difficulty that exists to induce a purda-lady to leave the privacy of her home. What is the remedy under the circumstances? To our mind the case lies in a nutshell. "Purda-women" are purda-women. Centuries of custom and centuries of prejudice have established the *purda-nashin* system, and it will take centuries to uproot or destroy it. Nothing but the general education of Indian women and their emancipation from the thralldom of social inequality—nothing but *liberty*, such as it is known among other Asiatic races, such as the Persians—we purposely exclude reference to European races—will draw aside the "purda," and open the way to that free resort to Western medicine as we find it in the lower stratum of female Indian society. For the present, and for many years in the future, it is, and will be, impossible to disestablish the "purda." Indian ladies subject to this custom will, in our opinion, never resort to any hospital or dispensary. If the Dufferin Fund for supplying medical aid to Indian women is to reach the sacred precincts of the Indian home, if it is to convey its blessings to that sisterhood of the human family in this country, a class that has much in it to command not only our warmest sympathy, but our admiration and respect, let the Fund, and those responsible for its efficient and satisfactory dispensation, adopt a new course. "If MAHOMED will not go to the mountain, let the mountain go to MAHOMED." Purda-ladies will not go to hospitals and dispensaries; they will not consult lady doctors outside their "purdas," then let all the advantages of skilled medical attendance that can be administered to such ladies in their homes, be given to them freely in their homes. Surely a system of house visitation could be established. Just as European ladies now ask for and obtain the services of doctors in their houses, so might purda-ladies do likewise. Let the hospitals and dispensaries do their work for the poor and distressed among the lower classes of our Indian sisterhood, for it is they, and they only, who will attend them. Banish the idea of expecting purda-ladies to resort to such places. Attach a larger staff of lady assistant surgeons to each hospital and dispensary as "home visitors" for purda-ladies, and make it possible for these to have the consultative help of the more experienced and better qualified "lady doctors" whenever need arises. Money spent in this way would soon be recouped, as it would enlist the sympathy of the better classes of our Indian fellow-subjects, and secure their subscriptions and donations towards the support of the Fund. It might be reasonably expected also that well-to-do purda-ladies should pay certain fixed fees for the home attendance of lady assistant surgeons and lady consultants. So far as the supply of medicines is concerned, the chemist shops, and not the Dufferin Fund Dispensaries, ought to meet this demand. On principle, the Fund ought not to bear the cost of providing medical attendance to the rich; but since the Fund was established with the definite aim of "providing" medical aid to "the women of India," the Fund is bound to make the supply not only possible and thoroughly efficient, but it is also bound to adopt such policy as will harmonise with, and not be obnoxious to, the customs and the prejudices of the many classes of people for whose particular and peculiar benefit it was called into existence by its noble benefactors and founder.

COMMENTS AND NEWS.

THE MEDICAL PROFESSION AND THE SOCIAL EVIL.

THE *Medical News* (New York) says:—There are now only two contagious diseases that are not submitted to the regulation of Municipal and State boards of health. Needless to say these are the venereal diseases. Of gonorrhoea, Professor NEISSER, of Breslau, the discoverer of the gonococcus, said in the article on the subject which he read before the International Conference on Venereal Diseases at Brussels, and which was contributed by him to the *Medical News* for January 1900, that it is the most contagious of diseases except measles. Syphilis is known to be very violently contagious. Passing exposure to the active agent of the disease may produce it. It was not difficult over ten years ago for an American syphiligrapher to find in medical literature 20,000 cases of innocent syphilis. Most of these were due to accidental contamination.

The watchword of present-day medicine is the prevention of disease, and especially of contagious disease. When two of the most important contagious diseases are left absolutely uncared for, things are just as they should not be. No reason can justify inaction in the face of the dangers from these intensely communicable diseases. At the Brussels Conference the agreement of delegates gathered from all over the world was that at the present time the attempt to enforce police regulations of prostitution is inadvisable. Americans, who have seen something of the inner workings of so-called police regulation in Paris, Vienna and Berlin, have very little confidence in the system as applied. There is an open acknowledgment of the necessity for evil that is distinctly lowering in its ethical tendency. The co-operation of medical men in the system gives a sense of security against venereal contagion that is not justified by the work done, nor its results. Finally, the increase of clandestine prostitution, despite the enforcement of police regulations, has shown that an effective registration and medical examination system is, under present living conditions in our large cities, a practical impossibility.

The Brussels Conference did offer one promisingly helpful suggestion as the result of its deliberations. It was that proper means should be taken for a more widespread dissemination of up-to-date knowledge with regard to venereal diseases. Our views as to the significance of venereal diseases have been completely revolutionised in these last twenty years. Gonorrhoea is no longer thought of as a simple inflammation of mucous membrane, resembling a cold in the head and not apt to be any more harmful in its results. This mildest of the venereal diseases may invade any of the serous membranes of the body. The arthritis it sets up may cause ankylosis and permanent deformity. It may give rise to fatal peritonitis, or to crippling and at times mortal endocarditis or pericarditis. Its curability is one of the most uncertain things in medicine. It has been known to continue and prove infective fifteen years after the original acquirement, although for many years it had been giving practically no symptoms. Such good conservative authorities as Professor FINGER, of Vienna, and Professor JULIEN, of Paris, men of very large experience, absolutely forbid marriage for two years after an attack of gonorrhoea.

So much for the milder venereal disease. Syphilis has always been a subject of very proper solicitude, but even its significance for evil has waned very much during the last

quarter of a century. The direct effects of the disease upon the nervous system were scarcely more than suspected a few years ago. Now they occupy a large place in pathology, and the indirect effects of syphilis, the so-called parasymphilitic affections, have become the most important part of neurology and syphilology. Practically all the apoplexies in patients under forty-five years of age are of syphilitic origin. Tabes, with its excruciating pain, its hopeless blindness, its crippling inco-ordination in the midst of torturing undisturbed mentality, is connected etiologically with syphilis in at least 70 per cent. of the cases.

The great mental disease of the century, general paralysis of the insane, is so closely connected with syphilis that there are good authorities who doubt if it ever occurs except in a patient with a syphilitic history. At the beginning of the century paresis was almost unknown. As the result of what KRAFFT-EBING has strikingly called syphilisation and civilisation, the disease has become one of the most important in our modern insane asylums. Over 30 per cent. of the inmates of asylums on the Continent are general paresis. In England the proportion is scarcely less. In this country the average is well up to 20 per cent. of all the insane.

These are the facts in the matter of venereal diseases that have been acquired by recent medical investigations and observations. Although the general public is intensely interested in the subject, people have scarcely an inkling of these new points of medical knowledge. What must be begun at the present time is not a new vice-crusade, but an education-crusade. Nothing is eventually more harmful to the cause of good morals than the spasmodic attacks of over-zealous virtue that attempts to reform the world all at once. Vice-crusades do more harm than good. If people can be impressed with the physical dangers inevitably associated with vice, then a public opinion will be created that will allow the enforcement of proper and systematic repressive regulations. At the present time legal regulation would soon resolve itself into nothing more than a new and powerful method of persecution and blackmail.

We must get beyond the mistaken notion that ignorance is innocence, and that the subject of venereal disease must be tabooed. Our young men particularly must be given definite ideas as to the present position of medical thought in relation to the venereal diseases.

The German University method, by which lectures on the subject are delivered, not alone in the medical department, but to all the students of the University, is an excellent one. If in addition such lectures could be given at young men's clubs, great good would be accomplished, and none of the harm that puritanic feeling imagines would result.

Here is the present duty of the medical profession for the prophylaxis of venereal diseases: Educate the people to right ideas. Just as education with regard to other contagious diseases has, not without delay and difficulty, produced a public opinion that now favors the enforcement of sanitary measures, even though individuals must suffer as a consequence, so, too, a public sentiment will be gradually raised up that will help and not hinder in the work of the elimination of the physical evils of venereal disease.

COATED TONGUE.

THE Medical Brief says:—The tongue is a valuable indicator of the state of the blood and eliminating organs. It also throws light on the activity of the digestive processes, and will tell us something about the condition of the nerve centres.

If the blood is surcharged with impurities and the eliminating organs are torpid, the tongue will be heavily coated. In the great majority of inflammatory affections, both acute and chronic, this coating will be found, and suggests to us the primary importance of attacking the toxæmia by way of the excretory organs.

With such a coat the doctor will give intestinal antiseptics and brisk cathartics before he does anything else. He realises that nutrition is at a standstill and infection propagating apace until he can do this.

Then he gently stimulates the heart and relaxes or braces arterial tension, according to indications, when, presto, the whole glandular system begins to act and the tongue to clean. The mind emerges from its stuporous condition, and faint evidences of appetite begin to manifest themselves.

The doctor knows his patient is better the moment he sees that cleaning tongue. The brighter eye, more animated face, moist skin and softer pulse are all superfluous so far as he is concerned.

In diseases of the kidney, the tongue's coat is particularly thick and offensive. When the liver is the seat of disease, the tongue's coat is usually tinged yellow, but a dark brown coat is indicative rather of great debility and profound prostration.

A thin white or grayish coat is an evidence of functional disturbance of the digestive organs or inactivity of the circulation in the abdominal organs. It signifies that food is slow of digestion and remains unduly long in the stomach. It is a condition easily set right by improving peristalsis and abdominal circulation.

A clean tongue in disease is apt to imply an irritable state of the nervous and circulatory systems, and would indicate soothing and bland remedies. If the tongue is small and trembles, it will require tact and care to pilot the patient safely through. With the broad, thick tongue, other things being equal, there is more endurance and reserve force; but function is apt to be sluggish and stimulation will be required in the treatment.

A thorough study of the tongue in its relation to the character of disease will repay any doctor. A scientific empiricism, based on observed facts, is worth more to us in practical results than all the conjectural reasonings which the inexperienced, closet scientist dignifies under the name of modern research and discovery.

OBSTETRIC NURSING.

We take the following excellent remarks from an esteemed London contemporary, *The Nursing Record*:—In a book on obstetric and gynaecological nursing recently published in America by Dr. EDWARD P. DAVIS, the author asserts that a thorough knowledge and drill in asepsis and antiseptics is indispensable in obstetric nursing, and further lays down the rule that "the nurse should consider each pregnant and parturient patient as a surgical patient, and, as far as antiseptic precautions are concerned, an abortion or labour must be treated as a surgical operation."

How many lives would be saved if this rule were always carried out, only those who have done obstetric work amongst the poor can form any idea. When septic lines are conscientiously followed in the management of these cases, "the peril of childbirth" is so minimised that the danger of death need not be seriously considered. But how far we are from having attained this standard at present the

statistics of the Registrar of births, marriages and deaths will show.

Great responsibility therefore devolves upon the nursing profession to secure to lying-in women attendants thoroughly well drilled in the principles of asepsis. How is this to be accomplished?

In the first place trained nurses, and more especially Superintendents of nurse training schools, have as yet scarcely realised the duty, which they cannot legitimately repudiate, of providing efficient obstetric nurses. They are apt to say that obstetric nursing is a "special branch," and to consider that they have done their duty to their pupils in providing them with adequate education in medical and surgical nursing. But we are, as a profession, beginning to learn that we cannot take up this position without developing in our midst the obstetric specialist whose qualifications we are unanimous in considering inadequate, and whom we do not and cannot recognise as a nurse at all, but with whom we have no right to find fault if we do not take pains to supersede her by a more efficient person. The fact is that it is as impossible to nurse one part of the body only as to treat one part without reference to the whole, and it is only possible to be an efficient obstetric nurse when one has been thoroughly grounded in the principles of medical and surgical nursing.

PERFECTION.

"Strive to make yourself more perfect,
Fitter for a higher life,
When you leave this world of beauty,
Beauty marred by sin and strife:
Strive to make *myself* more perfect,
This the creed you preach to me,
No, I hold a nobler gospel,
This is what I say to thee.
Work for others, work and labour,
Labour, working day and night,
Make the lives of others happy,
Help to make their burthen light,
Help and comfort the downhearted,
Help to cheer the frail and weak,
Let no thought of self be with thee,
But kind words to others speak:
Giving up ourselves to others,
Valuing ourselves as nought,
So it may be that Perfection
Will come to us all unsought:
Self and selfishness fall from those
Who for others work and pray,
Till unconsciously perfection
Grows upon them, day by day:
Thus at last they reach perfection,
In a world of sin and strife,
Purified from self and evil,
Passing to the higher life.—ROSE A. LEA.

INFECTIOUSNESS OF DIABETES.

THE *Medical News* says:—Recent clinical observations point more and more to the conclusion that diabetes may in some cases be of infectious origin. Transient glycosuria occurs in many of the infectious diseases. It has been noted, in slight amount at least, in over one-half the cases of whooping-cough. After pneumonia it has been found in some 12 per cent. of cases examined, and the presence of sugar in the urine could be detected as long as three months

after convalescence had been established. Like albumin in the urine, sugar would seem to occur during the course of many severe infections. The acute diabetes of young children bears all the stigmata of an acute infection.

Despite all the study that has been devoted to the pathology of diabetes, there remains a certain number of cases in which no basis of organic change to account for the disease can be found. There is undoubtedly a pancreatic diabetes. There is perhaps a hepatic diabetes. Beyond these cases lie the nervous and so-called hereditary cases, for which some explanation is asked.

It has been suggested that the disease is due to the presence of a ferment in the blood which converts the normally latent sugar of the liver and blood into glucose. In this form it cannot be used within the body, but is excreted as a waste product. What the nature of this ferment may be is not known. Supposing its existence, it is easy to see why diabetes attacks husband and wife, and often carries off several members of the same family. The possibility of its conveyance by contact is sufficient to cause physicians to warn those in intimate contact with diabetic patients of the necessity for careful precautions as to special cleanliness before food and drink is taken. Of course this will seem to most physicians absolutely unwarranted. They will scoff at the idea of the contagiousness of diabetes, and will talk of the cruelty of making life harder for unfortunate patients by giving publicity to such an idea. It must not be forgotten that a short quarter of a century ago just these same things would have been said about the contagiousness of tuberculosis had anybody even suspected enough about the real nature of the disease to suggest family prophylaxis.

RANGOON HOSPITAL.

THE *Indian Engineering* says.—This building was to have been taken over from the Rangoon Municipality by the Government from the commencement of the official year. According to what the President stated at a recent Sub-Committee meeting, it is not now certain that the Hospital will be taken over by the Government at all. Meanwhile the Civil Surgeon states the Contagious Diseases Ward is not fit for a dog to be kept in, and if there was any scandal about using it in future, the blame would have to be borne by the Municipal Committee, and not by him.

TOO MANY I. M. S. DOCTORS IN CHINA.

THE *Indian Daily Telegraph* says.—It is being said that the China Expeditionary Force was greatly "over-doctored," that a great many Indian Medical Service men were in China with practically nothing to do, whilst this country was suffering from a serious shortage in that very service. It should be remembered that at the time the expedition was forming, we were being shocked with the revelations of the sickness of the soldiers in South Africa, and the inadequacy of the medical staff and equipment. As events proved in China, the authorities were over-cautious.

STAFF POSTS OF THE R. A. M. C. AND I. M. S.

WITH regard to the appointment of Staff Surgeons and medical charges of Cantonments, the Government of India have decided that the alternating of two classes of appointments between officers of the R.A.M.C. and I.M.S. is an equitable arrangement, and all that is necessary to meet the requirements of this rule is that the appointments shall, on the whole, be divided as equally as possible between the services.

ABNORMAL HEAT IN CALCUTTA.

A correspondent writes:—It is curious that the recorded temperature of Calcutta has been steadily advancing of late years. From the date of the establishment of accurate readings at Alipur the highest point recorded up to 1888 was 106.6 deg. Many of us remember that year when the High Court was closed and business partially suspended on account of the intense heat. On May 20th, 1895, the previous record was broken, as Alipur registered 107 deg., and this same temperature was again recorded on April 15th and April 20th, 1896, and now, June 11th, 1901, goes one better with 108.2 deg.

SHORT ITEMS AND PERSONALITIES.

A dangerous post is that of physician to the ruler of Turkey, if we may believe a tale recently told by the London *Daily Express*. According to this paper, an aurist, who was lately treating the Sultan for an affection of the ear, accidentally touched the drum membrane, causing his patient intense pain. His Majesty, believing that an attempt was being made on his life, drew a revolver and shot the physician dead. A chamberlain hearing the shot entered, and the Sultan fired at him, wounding him.

An Irish brakeman was hurt by a train, and his friends offered to send for a physician. They asked, "Do you want an Allopath or a Homoeopath?" He replied, "It don't matter—all paths lead to the grave".

The following plaintive wail from the Burlington churchyard may be found soothing:—

Here lies the body of Mary Ann Lowder,
She died whilst drinking a Selditz powder.
Called from this world to her heavenly rest
She should have waited till it effervesced.

News has been received of the death in Shanghai, on May 18th, from Bright's disease, of Lieutenant-Colonel Eduljee Manekjee Damla, I.M.S., in charge of No. 66, Native Field Hospital, China Force.

Lieutenant-Colonel E. Mair, I.M.S., Inspector-General of Jails, Bengal, is allowed privilege leave for three months, and is permitted to combine with it furlough for three months.

Scientists have determined that the purest air in cities is found about 25 ft. above the street, and hence it is concluded that the healthiest apartments are those on the third floor.

"When called to care for a patient through an attack of illness, the physician should be a watchman all the time, and a therapist only when necessity arises"—Dr. Hare.

Dr. Hosack, District Medical Officer, Calcutta, left for England by the mail on Thursday on three months' privilege leave.

The announcement that General Taylor, Principal Medical Officer of His Majesty's Forces in India, succeeds General Jameson at Home, is now confirmed.

Captain H. A. F. Knappton, I.M.S., who has returned from China, rejoins the 23rd Bombay Rifles at Mir-Ali-Khel.

An Administrative Medical Officer will be appointed for the new Frontier Province.

Subscribers to the Record are kindly requested to send in their dues to the Manager without delay.

The Indian Medical Association fights the battles of the Medical Profession as a whole, and it takes up the cause of individual members as well. Join the Association and you will not be disappointed.

Current Medical Literature.**MEDICINE.****Jaundice without Bile in the Urine
(Acholuric Icterus.)**

M. ANTONY (*Bull. de la Soc. Méd. des Hôpitaux*.) says:—The origin of this condition is very obscure. In some cases certain dyspeptic troubles precede the attack and may cause infectious angiocholitis. But in the larger number the patients are healthy and the kidneys normal, and yet the icterus persists for months and sometimes years. The liver continues to secrete bile, as evidenced by the increased percentage present in the blood and intestines. Is it possible that the lesion is a local one, viz., an obstruction in a limited area of liver substance corresponding to a similar renal condition in which a persistent slight albuminuria continues without any systematic alterations?

Case 1.—A man, aged 28, had an attack of catarrhal jaundice on November 20, 1898, which followed a normal course. In February 1899, after eating haricot beans, he had violent colic and indigestion. Three days later he became jaundiced.

The liver was slightly hypertrophied. Under usual treatment the icterus rapidly disappeared, but left behind a subicteric tinge of skin which persisted in spite of all treatment. The urine contained no bile pigments, but they were found in the blood in large quantities. Subsequent gastric troubles, intemperance, and an attack of "typhoid fever," at once caused a rapid development of the jaundice, which subsided only to leave the skin tinged permanently a light yellow. There was no urticaria or nervous trouble.

Case 2.—A man, aged 23, not addicted to alcohol, had jaundice in October 1899. It was accompanied by nausea, indigestion, diarrhoea, and anorexia. After his discharge from hospital in November he kept to a strict diet, but the jaundice did not disappear, and the skin and mucous membranes remained a "golden yellow." The stomach was slightly dilated, and the epigastrium painful to pressure, and there was periodic epistaxis. The urine was free from bile pigments, sugar and albumen; but the blood contained an increased amount of pigments.

Hæmatemesis in Toxic and Septic Conditions.

In the course of nine months DIEULAFOY (*Jour. de Méd. et de Chir. Prat.*) has met with six cases of black vomiting (vomito negro appendiculaire) in the course of appendicitis, and quotes cases recorded previously by GUYOT and CHARLES, and by CHARLOT. Of his own six cases, four were fatal. The prognosis of such cases is therefore very grave, and is an argument for early operative interference in appendicitis. The anatomical lesion is minute ulceration of the gastric mucosa, resembling that form previously described by him as *exulceratio simplex*; and, like the ulceration already described in pneumonia, and that occasionally seen after strangulated hernia, is a toxic manifestation. An acute hæmorrhagic necrosis of a localised area of the mucous membrane, close to an artery, is set up by the toxins, while in the immediate neighbourhood there is hæmorrhage, chiefly into the submucosa coat and small cell infiltration. Other manifestations of this appendicular toxæmia are jaundice, urobilinuria, albuminuria, oliguria, and

even anuria and uræmic symptoms. The viscera show degenerative changes in their epithelial elements. In discussing this subject, LUCAS-CHAMPIONNIERE (*Acad. de Méd.*) pointed out that black vomiting occurred in septic conditions, especially those supervening in the course of intra-abdominal malignant disease, and was accompanied by intestinal paralysis and absolute constipation. Their successful treatment was washing out the stomach with an alkaline solution, since there was gastric hyperacidity; cases treated in this way had recovered, while others left entirely alone had succumbed. In the same discussion GUYON recorded three cases of hæmatemesis in the course of infection of the urinary tract.—*Brit. Med. Jour.*

Tuberculosis of the Kidney.

USUALLY cases of tuberculosis of the kidney do not come under the physician's eye until the symptoms are so well marked that a diagnosis is comparatively easy—to make a diagnosis early requires considerable skill. A method described by C. P. NOBLE and W. W. BABCOCK (*Amer. Gynecol. and Obstet. Jour.*) enables one to make a diagnosis in an early stage, or in a case of obscure character. This method consists in catheterising the urethra with sterile catheters and collecting the urine. The sediment from the urine thus obtained must then be injected into guinea-pigs. If a kidney is tubercular, the urine from it will infect the guinea-pig, as they are extremely susceptible to the tubercle bacilli. The objection to this method of diagnosis is the time required to its completion, as from four to six weeks are necessary. Care must be taken that the catheters and the tubes into which the urine is collected are sterile, and that all sources of contamination are avoided. The writers report a case in which the diagnosis, made in this manner, was corroborated by an operation on the affected kidney. The sediment of the urine was used, and about 1½ c.c. from each kidney was injected respectively into two guinea-pigs. When the guinea-pigs were killed, the one which received the sediment from the right kidney showed tubercular deposits. The operation on the right kidney showed a large, suppurating tubercular kidney.—*Med. News.*

Venesection in Heat-Stroke.

C. KLEIN (*Münch. Med. Woch.*) says:—A powerful, sober and healthy coal-heaver, aged 28, acted temporarily as a ship's stoker. After a few hours work in the engine room he complained of great thirst, became suddenly unconscious and had convulsions. Brought on deck he did not improve with the application of ice, the fresh sea breeze and artificial respiration. Chloroform was tried, but abandoned, as it affected the respirations injuriously. The convulsions became so violent that four sailors were required to hold him, and to continue artificial respiration was impossible. At the end of 15 minutes the pulse, at first hard and full, had become weak and intermittent, respiration was laboured, and the cyanosis was intense. Plainly the man was dying rapidly from œdema of the lungs. Venesection was at once performed and about 8 oz. of blood were evacuated. Immediate improvement followed; the pulse became slower and stronger, the respiration became slow, deep, and regular, cyanosis gave place to pallor, and the convulsions gradually ceased.

SURGERY.

Chancre of the Tonsil in a Woman aged 68.

DR. E. LAFARELLE (*Rev. Hebdom. de Laryng., d'Ot., et de Rhinolog.*) says:—A woman, aged 68, complained of sore throat and extreme lassitude. Six weeks previously she suddenly felt acute pain in the right side of the throat, accompanied by fever and headache. Next day she had considerable swelling and pain in the cervical glands on the right side. There was great pain on swallowing, and the breath was foul. She lost appetite and became thin, pale, and feeble; she frequently had vertigo, with tendency to syncope.

There was a diffuse infiltration of the right tonsil and of the pillars of the fauces of a bright red colour like that of a gumma before ulceration, or of an abscess in formation. The swollen tonsil formed a veritable tumour projecting in front of the anterior pillar and felt as hard as wood. The right cervical glands, especially those of the carotid region, were engorged, hard, moveable and painless.

The sudden onset, with fever, pointed to a simple acute tonsillitis, but the stationary condition, the long duration and the glandular enlargement were against this. The idea of epithelioma agreed with the patient's age and with the gland enlargement, but cancer does not begin so abruptly. A lymphadenoma would have commenced more slowly and made gradual progress, and the glandular enlargement would have been bilateral. The liver and spleen would also have been increased in volume. Examination of the blood showed an insignificant increase of leucocytes.

Mercurial inunction and potassium iodide were ordered. The characteristic syphilitic roseola appeared on the chest. After a fortnight's treatment the swelling of the tonsil almost disappeared, and there was scarcely any pain on swallowing. Six weeks later the roseola had faded. The patient had sucked the teat of the feeding bottle of a syphilitic baby.

Chronic Suppurations of the Middle Ear.

E. SCHMIEGELOW describes 96 cases he has operated and gives tabulated details. He has operated over 300 in all. In 23 cases the affection had lasted eleven to twenty years; in 17, from one to five years; and in one case between forty and fifty years. The mastoid apophysis was alone opened in 20 cases, with 55 per cent. cured in the rest; the otitis was not arrested. The attic was opened in 14 cases; seven were cured, three improved; one relapsed, and in two the result is unknown. In 53 cases the entire middle ear was opened, and 70 per cent. cured. In seven cases the operation was not completed. In nine cases there was improvement; three cases died—miliary tuberculosis or meningitis. The transverse sinus was opened once. In four cases the operation was followed by traumatic facial paralysis. He states that the patient must be prepared for the tediousness of the after-treatment. In one of his cases it required a year and a half; in several six to nine months, but the average limit was two to four. In 58 cases nothing could be learned as to the etiology. In 10 it commenced as an acute suppuration after influenza. In three it was evidently a carious process due to the presence of adenoid vegetations. In four cases the suppuration was tuberculous. In two it was the result of whooping-cough, in 11 of scarlet fever, in two of measles, in five of trauma, and in one case there was a carcinomatous growth. The hearing was unaltered after the complete operation in eight; more or less improved in 27.—*Jour. Amer. Med. Assoc.*

Surgery of the Biliary Passages.

ALESSANDRI, in the first of a series of papers on this subject, discussing the origin of biliary calculi, inclines to the view that they are generally formed round a nucleus in the gall-bladder, this nucleus being frequently of bacterial origin, usually the coli bacillus. Some gall-stones, when carefully washed, showed a branched nucleus indicating an origin in the intrahepatic biliary canals. The author discusses the various modes of obstruction arising from the presence of gall-stones. The duodenal portion of the ductus choledochus is the site of election when obstruction occurs, 67 per cent. of the cases occurring at that place. Muscular

spasm of the duct above the sphincter body may help in fixing it in situ. No constant relation exists between the size of the calculus and the clinical symptoms: hence it is impossible, from a consideration of these, to say whether the stone will pass or not. Biliary obstruction is generally associated with a certain amount of infection of the biliary passages, varying from a simple catarrh (the most common) up to a severe purulent angiocholitis. In cases where the stone ulcerates through, cloacal stenosis of the duct may be left behind. As to the relation between gall-stones and cancer, the most recent statistics (those of LOBKER) show that out of 172 cases operated upon 17 showed epithelioma of the gall-bladder.—*Brit. Med. Jour.*

Bullet embedded in the Heart for Thirty-Seven Years.

DR. O. B. BEER, writing in the *Cincinnati Lancet Clinic*, says that not long ago Dr. G. O. BROWN and he held a necropsy on an old soldier who had been wounded by "bushwhackers" during 1861. The wound was made by a small rifle ball of the kind used in muzzle-loading rifles. It had entered the thorax posteriorly on the left side between the second and third ribs, and had passed downward and inward through the left lung and pericardium, and had embedded itself in the wall of the heart near the lower part of the left ventricle. There had never been any disturbance of the heart's action, and the organ seemed to be perfectly normal. The man had, after recovering from the effects of his wound, served till the close of the war, and since had been a farm labourer. Cancer of the arm was the cause of his death.—*Brit. Med. Jour.*

Partial Resection of the Testicle for Tuberculosis.

DELORE (*Centralbl. f. d. Krank. d. Harn und Sexual Organe*) advocates an exploratory incision along the convex border of the testicle in cases of tuberculosis of this organ, to be followed by a partial resection of the diseased tissues, leaving as much of the rest as may be. The inspection of the testis from its surface often gives a false impression that it is sound when there are nodules of tuberculosis in its centre. This danger will be avoided by splitting it up in the manner advised, when, after removal of any such nodules, the organ may be sutured. The presence of even a portion of the testis in the scrotum, after the removal of the epididymis, is of considerable value to the individual from a sexual point of view.—*Med. News.*

Resection of the Cervical Sympathetic in Glaucoma.

JONNESCO has performed this operation seven times in the last year. The results were an immediate cessation of pain, fall of tension, reduction in the size of the pupil, and improvement of sight when the optic nerve was not already totally destroyed. JONNESCO removes the superior ganglion and makes a promastoid incision. The technique of the operation is minutely described.—*Int. Med. Mag.*

Ichthyol in Affections of the Eyes.

GERMANI finds that linolin mixed with from ten to fifteen per cent. of the weight of ichthyol is very efficacious in oiliary ophthalmia, curing it when the ordinary yellow ointment has failed. Collyria consisting from one to three per cent. of ichthyol are very useful in phlyctenular conjunctivitis and in simple catarrhal ophthalmia. Ichthyol is well borne, even when the pain, and hastens the cure.—*New York Med. Jour.*

OBSTETRICS AND GYNECOLOGY.

Hysterectomy for Acute Bacteremia.

H. J. BOLDT (*Phil. Med. Jour.*) says:—It is impossible, with our present knowledge, to lay down absolute rules for the performance or omission of the operation of hysterectomy, but for general guidance the following indications are advised for hysterectomy, if it appears evident that less heroic treatment is useless:—

1. If, after a full-term delivery or an abortion, there are no conception products in the uterus and the patient has fever with exacerbations, chills, a small and frequent pulse (120 to 140 or more); if careful observation should show that the infection comes from the uterus alone, that organ being enlarged, and relaxed in its consistency; if there is no evidence of peritonitis, the parametria free; if streptococci are found in the uterus; and, especially, if the blood shows the presence of pathogenic germs.

2. If there are decomposition-products in the uterus—as in the instances reported by SCHULTZE, PROCHOWNIK, STAHL, and others—which cannot be removed satisfactorily per vaginam; if on doing a Cesarean section the uterus is found septic, then an abdominal hysterectomy is indicated. Abdominal section with drainage is indicated in diffuse septic peritonitis, when there is no evidence of an exudate in the pelvis. The adnexa are to be left undisturbed unless there is positive indication to do otherwise.

Perforation of Fœtal Skull during Delivery with Recovery of the Child.

DR. LUDWIG FERNICE (*Centralbl. f. Gynäk.*) says:—Under the diagnosis of contracted pelvis and hydrocephalus, the attending physician perforated the child's head during labor and then applied forceps. The child was easily extracted and was found to be quite lively, but hemiplegic. Telling the parents that the child would soon be dead, the doctor proceeded to apply an antiseptic dressing to the injured head. The child persisted to live, and gradually the paralysis disappeared.

FERNICE saw mother and child when the latter was a year and three-quarters old. The mother had given birth to previous children normally, and the diagnosis of contracted pelvis could not be confirmed. The child was normal both mentally and physically, excepting for an artificial opening in the cranium covered by scar tissue through which could be seen and felt a pulsating cerebral tumor—prolapse of brain-tissue.

FERNICE denies that there could have been either a hydrocephalus or a contracted pelvis. The diagnosis during labor was wrong, and the treatment was necessarily erroneous. Just the same, because the child survived, the case is published as probably the only one of its kind in medical literature.

Case of Spontaneous Complete Rupture of the Uterus: Conservative Treatment: Recovery.

DR. K. J. F. BAUR (*Centralbl. f. Gynäk.*) says:—The rupture occurred in the case of a II-para, aged 25, with a slightly contracted pelvis. After securing the head in forceps it was perforated and the child readily delivered. By following the cord through the uterine rent, the hand was passed into the peritoneal cavity and the placenta seized and removed. The site of rupture was packed with gauze. The patient was in collapse with a pulse of 160, but rallied under subdermic salt infusions. The convalescence was marked by a continuous temperature and accelerated heart action. There were evidences of peritonitis and pneumonia. On the thirtieth

day, however, the woman was sufficiently recovered to be discharged from the hospital.

As a result of this experience, the author comes to the conclusion that in cases of complete uterine rupture with danger of hæmorrhage the uterus should at once be removed. If this possible danger can be excluded, and an easy labor is probable, then conservative treatment is perfectly justifiable.

Modern Treatment of Uterine Fibromata.

DR. A. LAPHORN SMITH (*Le Revue Médicale*) says:—Fifteen years ago, the mortality of abdominal hysterectomy averaging 50 to 60 per cent., the author began the use of the Apostoli treatment of fibroid tumors of the uterus with electricity, and symptomatically cured 63 out of 102 women.

Five years later, when PRICE, of Philadelphia, showed that he could get a much lower mortality by the use of the serre-neuf, the author began to operate several of the cases which had not been benefited by the electrical treatment. When BAER, of Philadelphia, showed that by preliminary ligation of the uterine artery—leaving the cervix—the mortality could still further be reduced, the author began to prefer operative intervention to electricity in certain selected cases, and finally, since the operation of PRYOR and KELLY has reduced the mortality to less than five per cent., the author advises operation in every case, and reserves electrical treatment for those women who decline to submit.

He has thus operated 11 consecutive cases without mishap during the past two years, using the "American" method by which the vessels are tied individually in one continuous section, passing down from the ovarian region on one side, across the cervix, and up to the same point on the other side.

To myomectomy he is opposed, unless in the case of sub-peritoneal or sub-mucous pedunculated tumours. He believes that every fibroid—no matter how small—ought to be operated,

Some Points in Natural History of Uterine Fibroids.

F. H. CHAMPNEYS gives a statistical study of the occurrence, symptoms and mortality of uterine fibroids in several of the London hospitals, and concludes that deaths from these, apart from operation, appear excessively rare. If the surgeon's practice is to operate only when life is threatened, the death must be credited to the disease; otherwise to the operation. The justifiability of the operation depends, however, on other conditions than those threatening life. They may produce conditions which make life unbearable: hæmorrhage, pain, incapacity for work. There has been a confusion, he thinks, between operation for ovarian and uterine tumours; the natural tendency of the ovarian is to death, and, therefore, operation is essential. A cystic fibroid should be treated as an ovarian tumour, and so classed from an operative point of view. In closing his paper, he remarks on the too free tendency at the present time to remove fibroids, and says that in these cases we should put ourselves in the place of the patient when deciding on the operation. —*The Lancet*.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Is there such a Constituent of Urine as "Ureine"?

W. S. HAINES and C. S. WOODS, of the Rush Medical College Department of Chemistry, take exception to the alleged discovery of a new constituent of the urine as claimed by MOOR. Their objections are maintained in the following propositions: (1) It is in the highest degree improbable that, if such a substance existed, it would not long have been discovered in view of the vast amount of work which has been done on the chemistry of this fluid. (2) The foundation on which the discovery is based has no existence in fact, as several well-known components of urine will produce the reaction which MOOR claims to be characteristic of ureine. (3) The latter is simply a strong aqueous solution of well-known urinary solids, and of chemicals used in operating on the urine. (4) Considerations in connection with specific gravity of the urine afford conclusive proof of the non existence of ureine. (5) If ureine is the poisonous element in urine, then the toxicity of the latter would disappear if the former were destroyed; but this is not the case, as experiment will easily show. —*New York Med. Rec.*

Experimental Pancreatitis.

FLEXNER (*University Medical Magazine*, Philadelphia) gives the results of a number of experiments which demonstrate that a considerable variety of injurious substances, injected into the duct or through the capsule of the pancreas, may set up an acute pancreatitis. The one which develops most quickly and causes most rapidly fatal results is the hæmorrhagic form. Bacteria are not essential for its production, although they or their toxins may cause it. Suppurative pancreatitis is due to bacteria, and may go on independently of, or be associated with, hæmorrhage. The gangrenous forms of pancreatitis are always due to secondary invasion of putrefactive organisms. The relation between hæmorrhage and necrosis is still unsettled. His experiments favour the view that very extensive hæmorrhages may occur without the appearance of any necrosis in the pancreatic tissue; and, further, that marked hæmorrhages may take place even when no gross or microscopic closure by thrombi of blood vessels is demonstrable. It would thus appear that both the hæmorrhage and the necrosis are the results of the simultaneous action of the injurious agent upon the blood vessels and upon the tissues. The part played by thrombosis is still an undecided question. His experiments also throw light upon the chronic forms of pancreatitis, the irritant setting up a slower form of inflammation associated with sclerosis. Bacteria acids, etc. give rise to fat necrosis, not because they themselves act on the fat, but by causing disturbances in the pancreas, and liberating the fat-splitting ferment which causes the decomposition of the fatty molecule. Similar lesions in the extraperitoneal fatty tissue are also not of bacterial origin, but are due to the action of the fat-splitting ferment.

Concerning the Pathogeny and Pathological Anatomy of Pterygion.

CATHERINE TRAPESONTZIAN (*Revue Médicale de la Suisse Romande*) concludes that the pterygion comes most often from the pinguecula, an affection characterised by hyaline degeneration of the elastic and connective tissue fibres, and by collections of hyaline substance between the fibres more or less normal. The proof of this is furnished by the presence of "débris" of the pinguecula that is found in the pterygion. The hyaline degeneration is not limited to the débris, but implicates little by little the rest of the hyperplastic and hypertrophic tissue. The elastic fibres are equally hypertrophied and degenerated, but their number does not appear strikingly increased. Collections of free hyaline substance exist without a doubt, but play a secondary rôle. It is this substance that WIEGERT considered solidified fibrin. It does not give us the characteristic reaction for fibrin. There is probably in the tissues a certain quantity of serum exuding through the vascular walls. In other cases the pterygion develops without being preceded by a pinguecula. The morphological characteristics of these pterygia, developing in different ways, are the same. The pinguecula signifies a profound alteration of nutrition of the tissues and changes their reciprocal relations. The conjunctiva becomes less supple, less elastic, and consequently more passive: it tends to preserve the abnormal position which is forced upon it. In every case the process passes below the epithelium of the cornea.

PUBLIC AND DOMESTIC HYGIENE AND JURISPRUDENCE.

Some Timely Words about the Social Evil.

THE *Philadelphia Medical Journal* says:—Dr. PRINCE A. MORROW, of New York, is a surgeon whose words carry weight with all men he speaks on this well nigh forbidden topic. He has both the personality and the professional experience, as well as the balanced judgment and fine ethical sense, which constitute him an excellent instructor for the people as well as for the profession on the delicate and extremely responsible question of the public recognition and control of the venereal diseases. In the present number of the journal, Dr. MORROW presents a paper in which he traverses rapidly, fearlessly and completely this entire field. The author of the paper has no illusions, yet he is not pessimistic; while on the other hand he has scruples, but he is not puritanical. He sees in the social evil, as he aptly expresses it, a necessary evil, not in the sense that it is indispensable, but that it is inevitable. The drift of his paper is to make clear a few essential facts. Its worth consists in its not attempting to say too much. The regulation of prostitution is, at best, a dubious and imperfect way of controlling the propagation of the venereal poisons. In this country such regulation is practically impossible, because public opinion will not tolerate it. This was made clear in Missouri in 1871,—and that State is the only one that has ever had the temerity to try to license prostitution. Sanitarians must reckon in this matter with public sentiment, whether they wish to or not, and in the meanwhile should not lose valuable time in vainly arguing this question from the standpoint hygiene versus morality. They should follow the course that Dr. MORROW points out, and try in some practical way to at least control and curtail the evil. That it can ever be entirely eradicated the history of mankind disproves; and while it is a fine thing to have enthusiasm in a good cause, it is somewhat Quixotic to believe that such a sordid and debauched curse as harlotry can ever be banished by the decrees of legislatures. The great merit of Dr. MORROW's paper is that it minimises the purely ethical and sociological aspects of this subject, and treats it largely as a wise physician should, upon a purely pathological basis. His paper is fully up-to-date in the way it demonstrates the grounds for our enlarged views about the far-reaching effects of gonorrhoea and syphilis, and his suggestions for meeting the evil are, we believe, about the only practical ones that can be devised. His arraignment of our hospitals for shutting their doors in the faces of venereal victims is timely and deserved, for their policy in this matter is worse than inhuman—it is short-sighted.

Symmetrical Development in School Children.

DR. E. STOVER (*Jour. Amer. Med. Assoc.*) says:—This article is of interest *apropos* of the etiology of many cases of lateral curvature of the spine. The author calls attention to the following errors, which he believes are common in a great majority of our schools:—

1. During the early, plastic years of childhood, young children are given too many studies.
2. The daily sessions are too long.
3. Recitations are generally too long.
4. Intermissions or periods of relaxation are not frequent enough, and the children do not have enough exercise in the open air, with free, spontaneous, unrestrained play.
5. Pupils are frequently deprived of the privilege of attending to the calls of nature.
6. The system of examinations generally followed is attended by many evil results.
7. Many teachers resort to cruel, dangerous and harsh punishments, instead of whipping when corporal punishment is necessary.

Influence of Intemperance upon the Death-rate.

THE *Philadelphia Medical Journal*, says:—Whether alcohol be a food or a poison is a question that will be answered somewhat in accordance with the individual point of view. To the judicial mind it would appear—para-

doxic as it may sound—that it may be either or neither or even both. The best disposition of alcohol is to place it with its congeners—ether, chloroform, etc.—in the category of drugs, with definite physiological and pathological activities, in accordance with the dosage employed, the frequency, mode and time of administration, and the susceptibility of the individual who receives it. Like other agents and agencies capable of doing good, alcohol is, as might be expected, capable also of doing harm, and no one can appreciate better than the physician the evil results of alcoholic intoxication. These can be seen directly in various disorders of the digestive organs, and in the more remote and widespread manifestation of arterio-sclerosis and visceral fibrosis. In addition, the impress of alcoholic excess can be observed upon the mortality-rate, and there appears an intimate relation between alcoholic excess and vice and crime. Thus, in the United Kingdom, while the average mortality-rate has fallen from 22.5 to 17.2 per 1,000 since 1872, the rate from alcoholic intemperance increased from 45 per million in 1875 to 77 per million in 1897. It is found also that the number of criminal offences is smaller in parts where alcoholic intemperance is less prevalent. Upon the physician as the conservator of the public health, therefore, it would seem incumbent to prevent and to correct, so far as possible, any tendency to alcoholic addiction, with the same earnestness as he strives to prevent and correct habituation to the use of chloral, cocaine, opium or any other substance prejudicial to health. A share of responsibility rests upon every physician in this matter.

Midwife convicted of Manslaughter.

FROM a report in the *Manchester Evening Mail*, we note that a midwife, named HANNAH SANDIFORD, aged 38 years, was tried before Mr. Justice WILLS and a jury at the Manchester Assizes on April 23rd for the manslaughter of ELIZA ANN GOODIER by means of an illegal operation. The prisoner pleaded not guilty. From the evidence, it appeared that the deceased woman finding herself pregnant, she being a widow and having a pension which depended upon her conduct, visited the prisoner at her house and asked her "to get her out of her trouble." Prisoner stated to her that she was not sure she could do so, but, after operating upon her with a taper, pronounced the case to be a "stubborn one," and said she would have to use a skewer. Whatever was used, the operation, it was clear, was done without skill, and the deceased, suffering from blood-poisoning, was taken in to hospital, and died as a result of the abortion and blood-poisoning.

That the prisoner did endeavour to procure abortion there was evidence from the police, to whom the midwife had stated, "I want to tell the truth. There are more in this than me. I have been doing this for eleven years and never made a mistake before. I only used tapers on the woman twice. The dead woman brought them herself and used them. I have been called to London and other places to operate on ladies, and I have thought I would get into trouble some time." She afterwards corrected this statement and said she had only done it for six or seven years. The statements made by her were voluntary.

There was no evidence called for the defence, and counsel, in addressing the jury on the prisoner's behalf, asked the jury to satisfy themselves that she was responsible for the wounds which caused the blood-poisoning and subsequent death before they found her guilty of manslaughter. The jury found her guilty, and the judge sentenced her to ten years' penal servitude.

The coroner's jury at the inquest had found her guilty of murder, but the grand jury threw this out, and returned a "true bill" for manslaughter.—*British Medical Journal*.

THERAPEUTICS & PHARMACOLOGY.

Tobacco as a Factor in Glycosuria.

DR. HEINRICH STEIN finds that tobacco may influence the pre-established pathological output of urinary glucose in the following ways: (1) By protracting the duration of transitory glycosuria, and by imparting to alimentary mellituria a certain degree of chronicity; (2) by increasing the quantity of dextrose in the twenty-four hours' urine, in the transitory as well as the chronic forms of glycosuria; (3) by transforming the lighter degrees of chronic glycosuria into the graver forms. These results he attributes in great part to the presence of carbon monoxide in the fumes of tobacco, it being a product of the imperfect combustion. He remarks that, as much less carbonic oxide originates from tobacco smoked in pipes, he has observed tobacco glycosuria only in smokers of cigars, and never in those who consume tobacco in pipes exclusively. It is an established fact that, in chronic carbonic oxide poisoning, glucose is very often found in the urine.—*New York Med. Jour.*

Cure of Traumatic Tetanus with Phenic Acid.

FLAVEL WOOD says:—A lad of 12 developed tetanus after running a nail into his foot, with symptoms of severe infection. Ten drops of a 10 per cent. solution of phenic acid were injected subcutaneously, and fifteen minutes later 20 drops, continuing with 80 drops every half hour all that day and night. *Cannabis indica*—25 mg.—was added to the solution during the day, but omitted, as the pupils contracted. The second day the 10 per cent. solution of phenic acid was injected in half-drachm doses every two hours. The third day the patient was able to swallow, and a drachm of the same solution was given in glycerine by the mouth three times a day. The odour of the phenic acid was marked in the urine. Recovery was prompt and complete. WOOD believes that large doses of phenic acid in these circumstances have an antitoxic influence if the system is promptly and thoroughly saturated. The antiseptic action probably occurs chiefly in the blood.

Brush Massage.

FAY recommends the use of a dry bristle brush for the purpose of massaging, and claims it has many advantages over the ordinary methods. It is easily learned and can be taught to the ordinary nurse. As he employs it, it consists in kneading all exposed portions of the body with the brush, keeping it in contact with the skin and manipulating with a circumductory and creeping movement with varying rapidity and pressure. The dry brush adheres to the skin, bringing with it the superficial structures in a way that can hardly be described, but can be appreciated on trial. Specially constructed brushes are not necessary. From a good assortment of flesh brushes, one can always select a suitable one for the purpose. He claims that it has an excellent effect on tic, tics, neuralgia, neurasthenia, hysteric and neurasthenic aches and pains, especially on the neck and back parasthesias.—*Jour. Amer. Med. Assoc.*

Treatment of the Heart in Typhoid Fever.

IN ABRAMS'S treatment of the heart in typhoid fever he sets forth the following theories in explaining the action of the cold bath treatment: (1) It possesses a powerful stimulating action on the circulatory apparatus and nervous system; (2) it exerts an antipyretic action; (3) it stimulates the nerve centres presiding over the functions of respiration, circulation, digestion and excretion; (4) the flux and reflux

of blood between the periphery and viscera are facilitated; (5) leukocytosis is produced. He advocates the use of the carbonated bath (SCHOTT method) in place of the cold bath, and knows no means better adapted for maintaining the vigor of the heart in typhoid fever, pneumonia and other infectious diseases. The reduction of temperature after the carbonated baths is relatively slight, and such reduction is evoked by dilatation of the subcutaneous vessels. If, however, we regard temperature reduction as a necessity, then we may alternate the carbonated with the cold baths, or we may even incorporate the ingredients necessary for generating the carbonic acid in the cold bath. He also describes the friction bath as follows: The patient is first rubbed or sponged with alcohol, and this is followed by vigorous cutaneous friction until the skin glows. In nearly all cases where the friction bath was employed in lieu of the cold bath the temperature reduction was slight, but the stimulating effect upon the heart and nervous system was pronounced. Another treatment is the siphon method, in which the patient is prepared in the usual manner for taking a sponge bath. The siphon bottle containing the carbonated liquid is gradually discharged over the surface of the body, notably in the thoracic region. The siphon may be immersed in hot water if desired. This method has reduced the pulse 10 to 20 beats a minute, which rate is maintained for a varying period of time.—*Phil. Med. Jour.*

Acute Sublimate Poisoning.

PAUL KRAUSE reports a case in which gr. xxx, corrosive sublimate were taken with suicidal intent. After a protracted convalescence the patient recovered, apparently without permanent damage to any of his organs; indeed, a chronic pulmonary tuberculosis from which he had been suffering seems to have been brought to a temporary standstill. In addition to the usual symptoms attending acute bichloride poisoning, there developed stomatitis with secondary purulent parotitis, gastritis with hæmoptysis, enteritis and colitis with bloody stools, and severe nephritis. A peculiar manifestation was a rash gradually involving the whole body, and resembling that sometimes observed in cholera cases.—*New York Med. Rec.*

Salol in Diabetes.

TESCHEMAYER says:—In accordance with EBSTEIN'S advice, 1 gm. of salol was administered four times a day to eight diabetics. In three severe cases no effect was perceptible, but in the others the sugar vanished completely from the urine during the treatment and for the several days afterward before the patients were lost to view. While the urine was under the influence of the salol, the plane of polarisation was deflected to the left.

Hamlet's Ague Pills.

TAKE OF—

Sulph. quinine ...	...	2 dra.
Powd. myrrh ...	...	1 dr.
Powd. capsicum...	...	1 "

Mix.—Make sixty pills.

Hanson's Magic Corn Cure.

A GOOD corn cure that is similar in every respect to HANSON'S Magic Corn Cure is made by taking of—

Simple cerate ...	...	1 oz.
Salicylic acid ...	...	4 dr.

Mix intimately.—*Indian Pharmacist.*

Correspondence.

DUFFERIN VICTORIA HOSPITAL FOR INDIAN WOMEN.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Please permit me space for a few words re the above Institution, concerning which a great deal has been written recently. It is now nigh fifteen years that the Dufferin Hospital has been working in Calcutta, and according to all statements, both Government and otherwise, the Institute has not done as much as it might have. Where lies the fault? Not in the staff, meagre as that is; not in the buildings, although the location of these has been repeatedly changed; but in the mismanagement of the working of the Institution by the so-called Committees, most of whose members being non-medical, prove hindrances in their views and opinions concerning its working. The lady doctor has always been hampered by unnecessary rules and regulations, and not allowed a free hand. In addition to this, too much seems to be expected of the lady doctors employed by the Dufferin Fund. They have not only to work single-handed, but have most inadequate and often incompetent subordinate staffs. Every big hospital, like the Dufferin Victoria Hospital, should have at least two lady doctors of the 1st grade, so that they might consult and work together in the best interests of the patients. At present the unfortunate lady doctors, if in any doubt about a case and requiring competent assistance, are placed in an awkward position, for one does not, as a rule, consult with one's subordinates. This state of affairs does not exist in the medical institutions under the superintendence of male doctors. To support my statement, just for a few minutes accompany me, Sir, to the Eden Hospital on an operation day, and you will find Surgeon-Colonel—the visiting Surgeon, attended by Surgeon Captain—the Resident Surgeon; one or two Assistant Surgeons; the experienced Nursing Sister; the matron, and perhaps two or three experienced European nurses, with three or four native dhais—a large and efficient staff—with the result that success attends and confidence is gained. Now accompany me to the Victoria Dufferin or any other Dufferin Hospital in India on a similar occasion, and you will find that the lady doctor has the whole onus to bear, having no equals or superiors to consult with; an inexperienced locally trained L. M. S., a matron (not too highly paid, and hence not the best sort), and a native dhai or two—quite an inadequate, if not incompetent, staff. The result, if unsuccessful, would not be surprising, and certainly no confidence can be inspired; and hence few, if any, operations are reported. A lady doctor, however competent in herself, in all serious cases, and especially major operations, needs consulting an efficient and large staff, as her professional brothers do. A good deal of stress is laid by the committees on the numbers of patients attending. But, considering the numerous large and well-equipped hospitals in Calcutta, the surprise is not that there are so few, but so many; and I am sure that the numbers would even double if the lady doctor were permitted to give her services to all women, and not so much fuss and ado made about the so-called *purdah-nashin*. By all means encourage this class to break through their trammels and seek the assistance of the lady doctor, by observing their caste and religious prejudices as much as possible, reserving cottage wards with separate courtyards for these; but do not, for the sake of the fees, shut out the many poor European, Eurasian, Jew, Native Christian, and low caste Hindoo and Mahomedan women. A women's hospital should give free admission to all women, irrespective of caste, creed, or nationality, and in this opinion I do not stand alone. As the President of the Central Committee of the Countess of Dufferin Fund, Her Excellency Lady Curzon remarked, in her speech at Bangalore on the 10th of December 1900, as follows:—

"I express my deep concern and tender sympathy with all efforts to relieve the sufferings of my sex and of the children in India. In this cause there is no such thing as distinction of race or creed, since suffering or distress is the bond that makes all humanity one." The Eden Hospital, though purely a women's hospital, and giving admission to all women, is conducted by a male staff of medical officers, and as there are hundreds of women of all nationalities and creeds who would prefer death to exposure and being handled by a male doctor, why should these be deprived of the services of the lady doctors of the Dufferin Fund, if they prefer and seek it?

In conclusion, I would suggest that the lady doctors of the Dufferin Fund should in all cases work directly under the Surgeon General, and that a similar female service to that of the male service should be organised if lady doctors are to be a success at all in India. Up to the present the Dufferin Fund has not encouraged lady doctors of a superior standing; some twenty to thirty ladies with registered qualifications have been engaged on inadequate salaries and no pension to look forward to, to say nothing of the miserable Indian climate. English ladies hence think twice before coming out—and local hands, however competent or experienced, are passed over, not having influence enough in high places to push them on. The Dufferin Fund has laid more stress on the Assistant Surgeon and Hospital Assistant classes—placing these inexperienced and half-educated ladies in responsible positions, more than their training can cope with—with the result that these, being termed lady doctors, bring discredit on the class as a whole. Of course the Assistant Surgeons and Hospital Assistants are absolutely essential, but, in their proper sphere, they should always be under a registered lady doctor of experience. Men of these classes are seldom, if ever, put in independent charge; then why the women? Grade for grade, are they more competent? The fact of the matter is that the Dufferin Fund, for want of sufficient capital, has tried to do too much on a cheap scale. If you will peruse last year's Report of the Bengal Branch, out of forty-five centres where female medical practitioners are engaged, only five are paid over Rs. 150, two L. M. S. ladies Rs. 170 per mensem; two registered ladies Rs. 350 per mensem, and the Calcutta lady doctor Rs. 550 per mensem. It is whispered that this latter lady is too highly paid—certainly not, if she be competent and experienced. In Bombay (Dr.) Miss FENSON, of the Cama Hospital, is getting Rs. 900, and is a Government servant, enjoying the same leave and pension privileges as the male doctors, and working directly under the Surgeon-General of Bombay; and with this one exception of the Cama Hospital, which can boast of three lady doctors, two besides (Dr.) Miss Benson, the 1st physician, the others being the 2nd physician, drawing Rs. 400 and the House Surgeon Rs. 120 per mensem, no other lady doctors in India serve for pension. Hence, in the medical field in India conducive to drawing good, experienced, and capable women?

I feel confident, that if Government would take up the cudgels of the lady medical practitioners and give them fair scope and proper treatment and inducements, they would be just as successful as their male coequals in India, as indeed they have proved at Home, in America, and on the Continent. Perhaps, if Government were to subsidise the Dufferin Fund and constitute a similar scheme to the Indian Medical Service, things would work better, and such institutions as the Eden Hospital and all Maternity, Children's and Women's Hospitals, Female Branches of Lunatic Asylums and Jails, might be worked by the Women's Branch of the Indian Medical Service with more benefit, physically and morally, to women-kind. The entrance to this service would, of course, be competitive, similar to the Indian Medical Service.

Yours, etc.,
REPORTER.

A SHORT COMMENTARY ON "FOOD AS MEDICINE" AND "DIET IN TYPHOID FEVER".

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The *Indian Medical Record*, in its issue of the 5th June last, has among its "Original Articles" one on "Food as Medicine," by J. FRANK KAHLE, M.D., Canton, Ohio, U. S. A. In this the author, amongst other things, says: "In prescribing a regimen for patients who are afflicted with some acute infectious or contagious disease—with due consideration for the natural longing for certain foods—we should make our selections largely from the non-nitrogenous food." Again, "It is my conviction that to prescribe a regimen in this disease (Typhoid Fever) scientifically, we should exclude all albuminous food." "Therefore, the food par excellence are the starches and fruit There are two reasons why milk should not be the principal food in enteric or in acute infectious fevers;" and again, "In typhoid we have self-consumption of tissues, in spite of all we can do; therefore, in approaching a physiological metabolism, the non-nitrogenous foods are indicated."

And let us see what another eminent authority has to say on this subject under "Diet in Typhoid Fever," which, curiously enough, also appears in the same issue of the *Indian Medical Record* under "Therapeutics and Pharmacology." JAMES TYSON (*U. M. Magazine*) strenuously upholds the milk diet as being the safest, most satisfactory and the most convenient. A tendency to constipation can be counteracted by not boiling the milk, and by the addition of butter-milk, animal broths, especially chicken broth, beef-juice and peptonised food to the diet The whites of two eggs to a pint of cold water, etc., etc."

The above two recipes on dietary in typhoid fever and similar other diseases are, to say the least, quite dissimilar and totally irreconcilable—one enjoins, almost exclusively, milk and other sorts of animal food; while the other rejects it as injurious, and apparently setting forth very good reasons.

Now, which of the two should we have? Are we to be thus gulled, or rather misgulled, in so important a subject of medicine, even at the beginning of the twentieth century? Our own Ayurvedic system of medicine strictly forbids milk, soup and other foods of like nature. But it is rather too much abstemious. If any food it would allow, it is more farinaceous than otherwise; while protids, with alcoholic stimulants, is the favourite panacea of the majority of practitioners of Western medicines. What incongruity! How incompatible!

The subject is, however, of such a vital importance that any discussion on it will not be too much said.

Yours, etc.,

DEORGA DAS SEN, L.M.S.,
Retired Assistant Surgeon.

BHOWANIPUR;
Calcutta, 19th June 1901.

CALCUTTA MEDICAL COLLEGE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Dr. BOMFORD, Principal of the Calcutta Medical College, has recently put up a notice to the effect that candidates for admission into the College must pass the F. A. Examination in the first or second division. In other words, students who have passed in the third division will find the doors of the College shut against them. It is impossible to understand whether it is but another manifestation of the Principal's autocratic proclivities, or whether it has been issued under the instructions of the Government. It is not known who is responsible for this retrograde, unjust, and mischievous notice.

There is nothing in the printed Regulations of the Medical College, which are published every year, that can justify the issue of such a notice. Students who pass the F. A. Examination in the third division form, by far, the largest majority; and to preclude this large number of students from admission into the Medical College amounts to cruel injustice. There is practically little difference between students passing in the second, and those passing in the third division, and that is, it may be said, more a matter of chance than anything else. The strongest argument, however, against this notice consists in the fact that there is, in most cases, no similarity between one's career in the general department, and in the professional walks of life. Instances are innumerable where students who plodded their way anyhow in the general department have scored brilliant success in the Medical College, and are now ornaments to the profession.

Is it just to throttle the natural ambitions of young men, merely on the ground that they have passed the F. A. Examination in the third division? We should emphatically protest against this notice of the Principal, which threatens to close the gates of the Calcutta Medical College against a large number of young men who have chosen a medical career.

Yours &c.,

L. M. S.

DO BIG DIPLOMA-HOLDERS ALWAYS TURN OUT GOOD MEN?

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I see the *Record* is inclined to be an idol-worshipper. The editor sings high the praises of London M.D.s, and possibly F.R.C.S.s, but I am not so positive about the unfailing fitness of things when diplomas with great reputations are made to weigh down personal qualifications. I am only an L.M.S.; yet I have seen enough in 15 years of practice to be in a position to say that British qualifications, even when backed by the title I.M.S., are no guarantee of personal skill. I have seen very bad work done by I. M. S. men, both in the Calcutta Medical College Hospital and in private practice. I have seen bad work done by men not in the I.M.S., but possessing high-sounding British qualifications. At the present time the town is full of rumours of an M.D., F.R.C.S. who blundered very grossly in operating on a West Indian gentleman for incarcerated femoral hernia, when the poor fellow protested he had no such trouble, and warned this surgeon that other doctors had seen him and pronounced his case to be one of chronic femoral lymphadenoma. He was chloroformed and cut open. The awful error in diagnosis was discovered too late. It was only a case of enlarged and painful lymphatic glands. The patient died in five hours after the operation, and his death was ascribed to "pyæmia"! No pus was found in any part of his limb! He died from shock. What was the value of big diplomas to the poor man, or to his bereaved widow and six growing children? No, Sir, let us have good diplomas by all means, but for God's sake let men who are to fill the awful responsibilities of a surgeon's life, be armed with experience and with a conscientious regard for human life.

Yours, &c.,
L. M. S.

THE LONDON M. D.: ITS ACADEMIC AND PRACTICAL VALUE.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I read some remarks in your last issue regarding the value of the M.D. degree of London University, which prove that you have a high opinion of this diploma. Unquestionably it is a meritorious distinction, but pardon me if I say that its reputation depends more on past

traditions than on any superiority to the present-day requirements of such universities as those of Edinburgh or Dublin. I claim that it is more a degree of "craft" than a thoroughly practical diploma, such as is most useful to the everyday practitioner of medicine, surgery and midwifery. Socially, it has not the concomitant advantages of such universities as those either of the English provinces or of Ireland or Scotland, for all there demand a *University training*, and this means a great deal in the matter of "social" education. Every "iversity man" knows what I mean by this!

Yours, &c.,
M. B., C. M., EDIN.

Calcutta, 14th June 1901.

CALCUTTA MEDICAL STUDENTS: THE HOT LECTURE ROOMS.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The lecture rooms in the Calcutta Medical College are unbearably hot and stifling in this weather, and there are no punkahs. Where there happen to be punkahs, there are no men to furl them. I am sure the professors and the Principal would help us in this difficulty if they could; but there seems to be no hope that the Government will come to our rescue. Can you not draw the attention of the Inspector-General of Civil Hospitals to this annually occurring grievance?

Yours, &c.,
MEDICAL STUDENT.

(This matter was brought to the notice of the Principal of the Medical College last year, and we feel sure that all that could be done was done by Colonel Bonford. However, there is no harm done in reverting to a subject that merits attention from those in authority.—Ed., I. M. R.)

OPHTHALMIC WORK IN INDIA.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—I see that the *Indian Medical Gazette* has issued a special "Ophthalmic" number for June. In it one finds a rather tall array of figures of work done by I. M. S. Surgeons. May I ask if in the figures quoted as "work done by I. M. S. men" there has not been included a good deal of the work done by Assistant Surgeons? I for one am sure that my operative eye-work has been included in the totals of "successes" by the Civil Surgeon of my district, but, perhaps quite unintentionally, my name (or even the words "my Assistant Surgeon") has or have been excluded. May I suggest that Assistant Surgeons who have done good ophthalmic work (and there are many who have done excellent operative eye-work) send in their statistics to the *Record*.

Yours, &c.,
CIVIL ASSISTANT SURGEON.

MUNICIPAL REORGANISATION SCHEME.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—Perhaps the adoption of the Reorganisation Scheme by the Commissioners at their meeting held on the 5th current is the best proof we have recently had that our so-called "representatives" are in no sense our representatives! I have had an opportunity, since the meeting referred to, of carefully considering the report in question, and while there was some foundation for the objections to such report taken at the meeting, and all of which were rejected, none of the commissioners appears to have laid his finger on what I consider to be the most objectionable feature in the scheme. It is obvious, on a perusal between the lines, so to speak of the report that the scheme, if successful, will make the Municipality a purely Government concern. We shall end by having a Government Engineer for the Engineer to the Corporation, or the Engineer-in-Chief, by whatever name he is known. A Government medical officer will supplant Dr. Cook

as Health Officer, and so on. It may be that the commissioners will not have far to go for some of the successors to the present incumbents in these offices. But was it ever intended that the Municipality should be a mere department of the Provincial Government? Are there not many rate-payers, aye, and some experienced commissioners, who consider that until we have a non-official chairman, our so-called self-Government will be the "solemn sham" which a High Court judge is once said to have characterised it to be? If we are to have a Government Engineer and a Government Health Officer, in addition to a Civil Servant for Chairman, would it not be the proper thing honestly to abolish the Corporation, and constitute a department of Public Health in its place? Unless this be the real programme of the nominees of the Chamber of Commerce and Calcutta Trades Association—I necessarily omit reference to the Government nominees—it may be well for them to know what appears to be the trend of the Reorganisation Scheme to

Yours, &c.,
A RATE-PAYER.

BOOK REVIEWS.

MEDICO-SURGICAL ASPECTS OF THE SPANISH-AMERICAN WAR.

BY LIEUTENANT-COLONEL NICHOLAS SENN, M.D.,

Chief Surgeon, U. S. Volunteers; Chief Operating Surgeon with the Army in the Field; Lecturer on Military Surgery, Chicago University.

(Publishers: Chicago American Medical Association Press.)

Americans are very rightly proud of their great and victorious triumph over the Spaniards. American doctors are just as proud over their important share in the success of their country's arms. Dr. NICHOLAS SENN has very graphically recorded the experiences of the medical department of the army in this remarkable war, both in camp and field. There is much for us to learn from our American cousins, and the medical profession of our army can do less wise and less profitable things than read Colonel SENN's able record of the Spanish-American War. There is very much well worth the perusal of medical men generally in SENN's book. It also contains excellent pictures of President McKINLEY, General WILLIAM R. SHAFER, and other notabilities of the campaign, besides many illustrations demonstrating the various phases of the war and its leaders, both medical and non-medical.

A TREATISE ON MATERIA MEDICA AND THERAPEUTICS, INCLUDING PHARMACY, DISPENSING, PHARMACOLOGY AND THE ADMINISTRATION OF DRUGS.

BY RAJMAL DAS GUPTA, L.M.S., CAL. UNIV.,

Lecturer on Materia Medica, Calcutta Medical School, Vol. I.

(Publishers: Hilton & Co., 109, College Street, Calcutta, 1901. Price Rs. 1-8.)

For medical students, dispensing chemists, and junior medical officers going up for an examination in Materia Medica, we have no hesitation in recommending Dr. Gupta's little book. It is a model aid and might well be imitated by "Aids" compilers in the Home-land. It beats almost every little book on Materia Medica that has yet been published. It is compact and complete on the subjects with which Dr. Gupta treats, and unless he intends dealing with "special" Therapeutics in Vol. II, we do not see the need of a second volume to his work. The price is very moderate, and is within the reach of the poorest student or medical practitioner. We heartily congratulate Dr. Gupta on his success, which reflects credit on the alumni of the Calcutta Medical College.

EXTRA-UTERINE PREGNANCY.

By JOHN W. TAYLOR, F.R.O.S., Eng.

Senior Surgeon, Birmingham and Midland Hospital for Women, &c., &c.

(Publisher: H. K. Lewis, 136, Gower Street, London, W.C.)

This monograph of 206 pages may well be regarded as a comprehensive manual on the subject of extra-uterine pregnancy, in the light of recent knowledge, both clinical and operative. Every phase of this delicate and intricate branch of Gynecology seems to be dealt with, with the skill and the confidence of a master-hand, and, as such, this work of Mr. TAYLOR is a great boon to every surgeon and every student of gynecology.

THE PRINCIPLES AND PRACTICE OF MEDICINE.By WILLIAM OSLER, M.D., LL.D., EDIN, F.R.C.P. & F.R.S. LOND., *Professor of Medicine in the Johns Hopkins University and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, U. S. A., &c.*

(Publisher: Young J. Pentland, Edinburgh and London).

This is the third edition of this world-famed physician's classical work on Medicine. From cover to cover it is a mine of wealth, a standard text-book par excellence.

Government Medical Gazettes.**INDIA.**

Indian Med. Service., Bengal estab., Majors to be Lieut.-Cols:—

Frederic Daly Omsar Hawkins; John Adams Cunningham, M.D.; Alexander Silcock, M.D.; Patrick Mullane, M.D.; John William Rodgers; James Farquharson MacLaren, M.B.

Madras estab., Majors to be Lieut.-Cols:—

Arthur Theophilus Lodge Patch, M.B.; Charles Adams, M.B., F.R.C.S.I.; Jamshedji Kharsbedji Kanga; Alfred James O'Hara.

Bombay estab., Majors to be Lieut.-Cols:—

Alexander Milne, M.B.; Richard John Baker, M.B.; William Alfred Corkery; Sarkies Thaddeus Aveloom.

Bengal estab., Capts. to be Majors:—

Fairlie Russel Ozzard; Adam Rivers Steele Anderson, M.B.; John Telfer Calvert, M.B.; Edgar Jennings; Arthur Geryase Hendley.

Bombay estab. Capts. to be Majors:—

William Symonds Percival Bicketts, M.B.; Charles Malcolm Moore, M.D.; George William Jenney, M.B.; Charles Tilson Hudson.

Indian Subordinate Med. Dept., Bengal:—

The undermentioned passed student of the Agra Med. School is admitted into the service as third class Hosp. Asst. from the 24th Jan. 1901:—

Ram Sarup Sarin.

BENGAL.

Asst. Surgn. Badrika Nath Mukerjee held ch. of the Jamui Sub-divn. and Dispy. in the Monghyr dist. from the 7th to the 9th May 1901, both days inclusive, during the absence of Asst. Surgn. Bhola Nath Pal at the Monghyr Sessions Court.

Asst. Surgn. Jojneswar Mukerjee, Teacher of Materia Medica and Pharmacy in the Med. School at Dacca, is allowed privilege leave for three months, with effect from the 4th May 1901.

Asst. Surgn. Badrika Nath Mukerjee is apptd. to do supy. duty at the Med. Col. Hosp., Calcutta, with effect from the 13th May 1901.

Asst. Surgn. Debendra Nath Harna, House Surgn., Med. Col. Hosp., is apptd. to act as Insp. of the Animal Vaccina-

tion Depot at Calcutta, during the absence of Asst. Surgn. Hari Pado Mukerjee.

Asst. Surgn. Syed Hassan, Insp. of the Animal Vaccina- Depot, Calcutta, is apptd. to be House Surgn., Med. Col. Hosp., Calcutta, vice Asst. Surgn. Debendra Nath Harna.

Asst. Surgn. Badrika Nath Mukerjee, a supy. at the Med. Col. Hosp., is apptd. to act at the Bhola Nath Bose's Dispy. at Barrackpore, during the absence of Asst. Surgn. Hem Chandra Sarkar.

Asst. Surgn. Upendra Nath Brahmachari, House Physician, Med. Col. Hosp., is apptd. to act as Teacher of Materia Medica and Pharmacy in the Dacca Med. School during the absence, on leave, of Asst. Surgn. Jojneswar Mukerjee.

Asst. Surgn. Hem Chandra Sarkar, of the Bhola Nath Bose's Dispy. at Barrackpore, is apptd. to act as House Physician, Med. Col. Hosp., Calcutta, during the absence of Asst. Surgn. Upendra Nath Brahmachari.

BURMA.

Hosp. Asst. H. Dorasawmy Pantulu relinquished ch. at the Police Hosp., Shamo, on the 2nd April 1901, and assumed ch. at the Outpost Hosp., Nampaung, Shamo dist., on the 6th April 1901.

Hosp. Asst. Mahomed Abdul Karim relinquished ch. at the Outpost Hosp., Lweijbum, Shamo dist., on the 29th March 1901, and assumed ch. at the Police Hosp., Shamo, on the 1st April 1901.

Hosp. Asst. Abdur Rahman relinquished ch. at the Police Hosp., Myitkyina, on the 10th April 1901, and assumed ch. at the Outpost Hosp., Endawgyi, Myitkyina dist., on the 13th April 1901.

Capt. J. Penny, I.M.S., on transfer to Myingyan, relinquished ch. of his duties as Deputy Sany. Commr., Burma, on the 25th March 1901.

Asst. Surgn. K. K. Chatterjee, on transfer to Kindat, relinquished ch. at the Gen. Hosp., Mandalay, on the 9th May 1901.

The undermentioned Hosp. Assts. on transfer from India, assumed ch. at the Gen. Hosp., Rangoon, as supernumeraries on the dates specified against each:—

Hosp. Asst. Manmatha Nath Sinha,—on the 15th May 1901.

Hosp. Asst. Dasarathi Swain,—on the 5th May 1901.

Hosp. Asst. Lala Padmacharan Roy,—on the 8th May 1901.

The undermentioned passed med. pupils have been apptd. Hosp. Assts. with English qualification, with effect from the 1st April 1901, and are posted temply. to the Gen. Hosp., Rangoon:—

P. Mammoo; N. Raghunathayya; C. Rajaratnam; B. S. Ramasawmy Iyer; S. M. Susamatha Pillay.

Hosp. Asst. C. J. Packiam Pillay, on transfer to Bassein, relinquished ch. at the Civil Hosp., Maymyo, Mandalay dist., on the 7th May 1901.

DOMESTIC OCCURRENCES.

[The charge for inserting a Domestic Occurrence is Re. 1 for subscribers and Rs. 2 for non-subscribers, which should be forwarded in stamps with the announcement.]

DEATHS.

BOWSER.—At Lahore, on the 2nd June 1901, Henry Charles Bowser, M.B.C.S. & L.M., Eng., eldest son of the late Surgeon James Bowser (late Superintendent, Calcutta Medical College Hospital), formerly of the Bengal Civil Medical Service, and for many years in medical practice in Australia, aged 63 years.

IN MEMORIAM.

CAMPBELL.—At Dehra Dun, on the 11th June, of cholera, Henry William Campbell, Medical Practitioner,—aged 36 years 10 months and 28 days. (Deeply mourned by his wife and children).

ORIGINAL ARTICLES.

PALPATION OF THE UTERINE APPENDAGES.*

BY GEORGE GRAY WARD, JR., M.D.,

*Adjunct Professor of Diseases of Women, New York
Post-Graduate Medical School and Hospital;
Instructor in Obstetrics, Cornell University
Medical College; Assistant Attending
Physician, Mothers' and Babies' Hos-
pital; Fellow of the New York
Obstetrical Society, etc.*

If there is one question more than another that a teacher of gynecology is asked by the student, it is, "How can I feel an ovary?"

Especially is this true in post-graduate teaching, it being a most frequent occurrence in the writer's experience to come across men in active general practice who state that the palpation of the uterine appendages is a closed book to them, and that diagnosis of diseases of these important organs is entirely beyond their reach, for the reason that they cannot feel the adnexa, although repeatedly examining many cases in their practice.

They can often make a diagnosis as to the position of the uterus, the condition of the cervix, or the pelvic floor; but the condition of the ovary and tube is like the "Will-o'-the-wisp" or the "Irishman's flea," and as these essential organs of the female are ever most prone to pathological changes, they naturally feel their incompetence to diagnose, let alone treat, a gynecological case.

Now let us consider the proposition before us, and see if we cannot shed a little light on this elusive subject, and thus aid the tactile sensibilities and lengthen the finger of the anxious inquirer.

In making a bi-manual examination, the novice will frequently attribute his failures to the shortness of his phalanges, and he will endeavour by pure physical force to gain further entrance into the pelvis, with the result that he causes needless pain to the suffering patient, who, frightened by fears of worse pain to come, sets to the utmost her abdominal and pelvic floor muscles, in order to resist the rude invasion with which she is threatened, thereby making it impossible for him to get within reach of the adnexa with his examining fingers.

He has no definite plan of procedure in his mind, and his one idea as to the position of the ovary is that it lies on one side of the uterus, at or near the plane of the fundus uteri, just as he has seen it pictured so often in his text-books, and when he can feel nothing at that particular location, in spite of the straining muscles of his forearms and hands, he is discouraged and gives up, with either increased respect for the expert who tells him so glibly the size, shape, and consistency of the organs, or with grave doubts in his mind as to the veracity of his mentor.

In conducting a bi-manual examination, the patient should be placed in the dorsal position, preferably with the hips elevated. All tight clothing, corsets, etc., should

be thoroughly loosened, and the thighs flexed from the abdomen and rotated outwards.

This position of the thighs can best be attained by the use of the leg-holders devised by Professor Edwards.† They are of special value in nervous patients, as they cause the abdominal muscles to become relaxed, and they effectually prevent the approximation of the patient's knees.

In all cases the patient should empty her bladder before going on the table. This is a detail that is frequently neglected and is the cause of failure in many instances. It is likewise of advantage that the lower bowel should be emptied, and when possible the patient should be instructed to take an enema before coming to the physician's office.

It is essential, to start with, to have the fact firmly impressed on our minds that more can be accomplished by gentleness of manipulation and skill than by physical force in the majority of cases, and that, where it is necessary to use deep pressure, it must be done slowly and gradually, so as not to alarm the patient, and by the exercise of strategy in distracting the patient's mind from the examination by asking questions and by getting her to take deep inspirations, we seize the moment when the abdominal muscles are relaxed to gain the desired entrance into the pelvis with the external hand.

The examiner should accustom himself to use the fingers of either hand in the vagina, as it is easier to reach the left appendage with the left hand, and the right appendage with the right hand.

Care should be taken in introducing the fingers into the vagina that the ring and little fingers are well flexed on the palm of the hand, so that their knuckles get into the sulcus between the buttocks, and do not lie across the tuberosities of the ischii, which of course would effectually prevent the deep introduction of examining fingers.

If necessary, the thumb can be closed upon the index finger, so that it passes under the pubic arch, and by this method the whole pelvic floor can be invaginated to a considerable extent, and a marked gain in the reach can be thus obtained. The elbow of the examining hand should rest against the examiner's hip, and all pressure should be made by throwing the weight of the body upon the elbow, thus allowing the muscles of the forearm and arm to be at rest, which greatly facilitates the vaginal touch.

The first step necessary to the palpation of the adnexa is to locate the fundus of the uterus, as with the fundus as a guide the location of the appendages is made easier.

In commencing the examination the index finger, or, if the vagina will admit, the index and middle fingers, after being well lubricated, are gently and slowly passed into the vagina until the cervix is reached. The palmar surfaces should be uppermost, and the fingers should pass into the *cul-de-sac* beyond the cervix, so that that organ should rest upon their tips.

Slight upward pressure in the direction of the inlet of the pelvis is then made, while the external hand makes counter-pressure on the abdominal wall midway between

* Reproduced from the Post-Graduate.

† New York Jour. of Gyn. and Obstet., January 1893.

the umbilicus and the symphysis. In using the external hand great care should be taken to always keep the four fingers closed together, and to use the palmar surfaces as much as possible, and not the tips, as to separate the fingers and to use the tips is decidedly unpleasant to the patient, and will cause her to resist.

The pressure made by the external hand should be at first very gentle, gradually increasing until the fundus of the uterus is reached, which can be told by the fact that the pressure on the uterus is at once communicated to the fingers in the vagina, upon which rests the cervix.

The size and shape of the uterus can thus be judged, and also the amount of mobility that it possesses.

Should the uterus be anteverted or anteфлекed, it would be necessary to explore with the external hand, right up to and behind the symphysis, until the fundus was located.

In cases of backward displacement, it is often necessary to use another method, which will be described later.

Having located the cervix and the fundus of the uterus, the next step is to remember that the tube and ovary, unless bound down by adhesions, are *moveable*, as can well be brought to the examiner's mind, when he remembers how often he has seen the operator bring up the appendages out of the pelvis upon the abdomen of a patient through the abdominal incision, when they appear to be loosely attached to the horn of the uterus.

In this fact lies the cause of the failure to reach these organs in many cases; the novice examines in *one* place for them, and as they are slippery bodies, they are as difficult for him to get hold of with his external and internal examining fingers as the proverbial eel; therefore he must endeavour to *catch* these organs, and as they may lie, or be pushed into any part of the space between the middle line of the body and the lateral pelvic wall, he must systematically search each half of the pelvis.

It is better that one hand do the searching, the other remaining stationary for the time being to act as a counter-point.

After having located the cervix and the fundus of the uterus, the vaginal finger or fingers are slipped to one side of the cervix into the lateral fornix, and pressure is made in a direction upward and backward, at a point midway between the cervix and the pelvic wall. These fingers remain stationary, while the four fingers of the external hand, curved in the shape of a scoop, systematically rake the area from the fundus to the side of the pelvis, in lines radiating to the examining fingers in the vagina, first commencing at the horn of the uterus, and raking downward until the fingers meet those of the vaginal hand, and repeating the process, each time beginning a little nearer the side of the pelvis, until the whole area has been explored. It may frequently be necessary to go over the ground repeatedly before the ovary can be caught.

The position of the vaginal fingers is to be varied from time to time antero-posteriorly and laterally, so as to cover new planes.

As soon as the ovary and tube are imprisoned between the scoop formed by the external hand above, and the fingers in the vagina below, their character, size, sensibility, and consistency can be made out, as they slip between the opposing finger-tips. The normal tube can be traced from the horn of the uterus, feels like a cord about the diameter of a slate pencil, and it is not painful to moderate pressure.

The normal ovary feels as large as a walnut, and firm pressure gives the same sickening sensation and pain to the patient as pressure of the testicle.

The opposite side of the pelvis is to be explored in a similar manner for the other appendage, using the right hand in the vagina for the right adnexa, and *vice versa*.

In cases where this method does not succeed, resort should be made to recto-abdominal palpation.

In this method the index finger is introduced into the rectum instead of the vagina, and the palpation made with the external opposing hand, as in the bi-manual examination just described.

When the uterus is retroverted or retroflexed, recto-abdominal palpation is usually preferable, and is a great gain, especially if the uterus is drawn down to the vaginal outlet by a tenaculum or volsellum, which permits the fundus to be reached posteriorly, and also brings the adnexa within the radius of the examining finger. The recto-abdominal method should always be used in *virgines intacta*.

Recto-vagino-abdominal palpation is also of great value in difficult cases. The index finger is placed in the vagina, and the middle finger in the rectum, which enables the perineum to be carried upward on the web between the fingers, for two or three centimetres, while counter-pressure is made over the abdomen with the external hand, as in the ordinary method.

In cases where the palpation is difficult, due to rigidity of the abdominal muscles or excessive sensitiveness, it is well to examine under *anæsthesia* before subjecting the patient to operation on a doubtful diagnosis. Nitrous oxide is an ideal *anæsthetic* for this purpose.

While palpating the appendages, a great deal can be learned concerning the condition of the broad ligaments, whether they are elastic and yielding to pressure, or whether they are dense, thickened and resisting, as when adhesions are present or there is a plastic exudate.

Judging the amount of room there is for the examining fingers in one lateral fornix as compared to the other, and also the amount of pain in these regions, elicited by pressure, will throw additional light on the pathological conditions present.

In commencing the practice of bi-manual palpation, it is wise to select a patient who has borne children, who is thin, and who has thoroughly relaxed abdominal walls.

In women who are fat, and who have rigid abdominal muscles, even the expert must necessarily resort to complete *anæsthesia* before he can make a positive diagnosis in many cases.

The beginner must not feel discouraged at failure to satisfactorily feel the appendages in his first attempts, but by patience and persistence, avoiding haste, paying careful attention to all the minor details, and by having a definite plan of procedure in his mind, he will surely succeed. He must remember, however, that the *tactus eruditus*—the educated touch of the expert—can only be gained by frequent and long-continued practice. It is acquired only by cultivation.

SALINE TREATMENT OF DYSENTERY, BASED ON EIGHT HUNDRED AND FIFTY-FIVE CASES WITH NINE DEATHS.*

By MAJOR W. J. BUCHANAN, M.B., D.P.H. DUB., I.M.S.,
Superintendent, Central Prison, Bhagalpur, Bengal.

In the *British Medical Journal* for February 10th, 1900, I published a note on the results of the treatment of dysentery by salines, based on 555 cases, with only six deaths. The present note deals with the results of 300 more cases which have been treated with salines in my hospital during the year 1900, with only three deaths, making a total of 855 cases with nine deaths, or a mortality of only a little over 1 per cent.

RELAPSES IN DYSENTERY.

In 453 cases noted last year, it was shown that there were 69 relapses, or one in 6.5; this year the results are slightly better, there having been only 51 relapses out of 300 cases. Of the 300 cases one case relapsed four times, 13 cases relapsed twice, and 37 cases had only a single relapse, total 51. Of the 37 single relapses eight followed within a month of being discharged from hospital, nine in from one to two months, eight in from two to four months, three from four to six months, five from six to twelve months, and four at intervals over one year (one being after four years, and one after two years; these can hardly be called "relapses").

These results are even better than those published last year, and may be taken to represent pretty accurately the actual permanent recoveries, as they have been continuously under observation, with the exception of about 20, who were discharged from jail under six months from the date of the last attack.

SEASONAL PREVALENCE OF DYSENTERY.

The monthly distribution of these cases was as follows:—

January ... 17 cases.	July ... 36 cases.
February ... 4 "	August ... 67 "
March ... 18 "	September ... 69 "
April ... 13 "	October ... 30 "
May ... 10 "	November ... 14 "
June ... 5 "	December ... 17 "
Total ... 300 "	

These figures, as well as those published last year, show the seasonal prevalence of the disease—namely, in the rainy season, from the end of June till late in October.

* Reproduced from the *British Medical Journal*.

The period of their stay in hospital this year averaged eleven days, as compared with ten days in those previously reported. Many might have been discharged earlier, but a stay of several days in hospital, after the stools have become normal and full diet has been allowed, is, I consider, a most important point to be attended to in the prevention of relapses.

Of the three fatal cases in this series two were extremely acute cases in which meat-washings stools were constantly passed, and a condition of acute gangrenous inflammation of the colon rapidly supervened. The third fatal case, after the salines had failed, made a wonderful rally after a large dose of ipecacuanha (30 grs.), but died some seven weeks later with symptoms of chronic diarrhoea. At the necropsy the small intestine was found thin and atrophied, and the large intestine was a mass of chronic inflammation from the cæcum to the rectum. He was a feeble old and toothless man, aged 55.

METHOD OF USING THE SALINES.

There is little to add to the remarks made last year. I used throughout the year the following mixture: R—Sodii sulphatis 3j; aquæ fœniculi ad 3j. This was given four, six, or eight times a day (each dose represented one drachm of the saline) as the case required. No dose was repeated on the following day till the stool had been inspected. The saline was continued till every trace of blood and mucous had disappeared. In most cases the inflammatory products had disappeared completely in two or three days; in others they returned on the third or fourth day, necessitating a repetition of the saline.

In a note on the saline treatment of dysentery, published during the past year in the *British Medical Journal*, our writer from the South African War hospitals referred to the saline method as being "painful;" in my experience it is rather the tenesmus, etc., which is rapidly relieved by the salines, which is "painful;" the soft yellow stools passed after the use of the soda sulphate cause no pain.

LIMITATIONS OF THE SALINE TREATMENT.

A word or two is necessary on the limitations of this method of treating dysentery. It is advocated for acute cases only. I do not consider it a safe method for chronic or relapsing cases with ulceration of the colon. In cases in which either the symptoms or the history point to the disease being either chronic or relapsing, I only use the saline for one or two doses during an exacerbation of the chronic state, and then continue to treat the case with soda and bismuth or, with salol, with an occasional dose of castor-oil. For stools containing scybala nothing is so good as a dose of castor-oil guarded by 10 minims of laudanum.

The saline treatment of dysentery is now very largely used in Indian hospitals, and I would impress upon all who wish to try it that unless they can arrange to see the stools daily (at least one morning stool), they can never use the method to its best advantage.

* The stools of all chronic cases should be frequently "washed," after the method long in use in India (and recently described by Professor Kenneth McLeod in the *Edinburgh Medical Journal*, April 1900). In this way alone can an accurate knowledge be got of the actual state of the bowel inflammation.

When the patient can be admitted to hospital, I believe the saline is the best method of treating acute dysentery; but I would hesitate to apply it in a routine fashion in out-patient practice, on account of the possibility of many patients having had previous attacks, and having their bowels in a state of unhealed ulceration.

From what I have read of the use of this drug in the dysentery of the South African campaign, I am not sure that it was not often given in relapsing cases, and when chronic ulceration was present. It is not (except in the limited way noted above) intended for such cases. The success which has this year attended our treatment of the chronic cases is, I believe, due to careful dieting on rice water (*mar*), and boiled milk and tyre (*dahi*), the use of anthelmintics (a large proportion of the inhabitants of this part of Bengal harbour both round and tape-worms), and the careful occasional use of the saline, with DOVER'S powder and the intestinal antiseptics. There is no royal road to the cure of chronic dysentery. I also have freely used fresh bael fruit, especially for the chronic cases. This fruit is now again official, but I doubt if the inclusion of its preparations in the Indian and Colonial *Addendum* to the *British Pharmacopoeia* will be of much use, as the fresh fruit is available in India almost all the year. It is perhaps worth noting that not a single case of liver abscess was found among the 885 cases here referred to.

MORTALITY OF DYSENTERY.

As regards the mortality of dysentery, the figures quoted in all recent text-books are somewhat misleading. The death-rate for natives from dysentery is given usually at from 30 to 37 per cent. These figures are based upon cases admitted in an advanced state into public hospitals, many of them having previously suffered from the disease. In the past few years over 60,000 cases of dysentery have been treated in all the jails of India with a mortality of only 7 per cent., which is the same ratio as given by SCHREUBER for the dysentery of the further East. The very favourable rate of just over 1 per cent. for the above 885 cases represents the saline treatment of cases of acute dysentery, promptly and immediately treated as in-door patients in a hospital.

A MESSAGE FROM THE DEAD: A PSYCHOLOGICAL STUDY.*

BY SAMUEL T. KNAGGS, M.D., ETC.,
Sydney.

THE NARRATIVE OF MR. MAIHEN BROOK.

It was the year 18—, cholera had been raging. The panic amongst the inhabitants had died out and had been replaced by a stolid indifference to death which almost approached the appearance of a calm resignation. Carts still patrolled the city, each in charge of two men, dressed in long white blouses, whose duty it was to call at such houses as required their services, to hurriedly see that breathing had ceased and then place the dead in the plain, unpainted shells and convey them to the place of

burial. This hastiness may possibly have given rise to the rumour, probably exaggerated, that often the living were interred with the dead.

LOUIS MARISCHE and I were the senior assistants of Dr. MARX, the principal physician to the Bonn Cholera Hospital. It was originally a general hospital for all classes and conditions of patients, but the exigencies of the epidemic and the necessity for isolation made it imperative that only cholera cases should now be admitted within the doors; and they were admitted by the dozen daily, in all stages of the horrors and agonies of the direful plague, and the deaths were many and often so frequent, indeed, that we required almost as much house-room for the dead as for the living.

Winter had set in suddenly, commencing with a violent snowstorm, and we had hopes that the cold and sleet would abate the ravages of the epidemic. MARISCHE and I occupied the same apartments, slept in the same bedroom, and had our meals in the same dining-room. His mother was a German and his father an Italian—each of an opposing religion—Catholic and Protestant; it, as sometimes happens, resulted that the son was a pronounced Agnostic, had no belief in God, the church, or the devil. During the long weary winter nights we used often to while away the time by arguing over theological and kindred subjects. I, espousing the belief in a brief span of life in this world, a glorious resurrection and happy after-life. After a long and heated argument one night, in which I flattered myself that I had the best of it, MARISCHE suddenly said, "Look here, BROOK, suppose we draw up and each sign a solemn agreement, that the one of us who dies first shall, if possible, come back and tell the other if there be a God or a future." I shuddered at the thought, but the idea fascinated me, and a climax was reached when MARISCHE and I drew a small quantity of our own blood, mixed it, and added to it some vinegar to keep it fluid, and with this strange ink we drew up and signed an agreement in accordance with his suggestion.

Only a week had elapsed and I was alone in the dining-room, LOUIS MARISCHE was lying a corpse upon the marble slab in the mortuary. He was also alone, for four other cholera victims had been removed for burial that afternoon. To his right hand was affixed a cord which communicated with a bell in my room. This was a precaution always adopted with everybody dead of cholera. It was a safeguard to warn the resident should the attendants in their haste have put away the patient while life still lingered. The slightest movement of that band would ring the alarm.

The chimes of a neighbouring cathedral struck eight o'clock. I was buried in a deep reverie, sadly reviewing my past acquaintance and friendship with my dearest friend, now dead. He had told me of his parents and only sister, a girl seventeen years of age, to all of whom he

* Reproduced from the *Australasian Medical Gazette*.

was devotedly attached. I was wondering in what terms I should couch the letter informing them of their sad bereavement. My thoughts were intensified by the sad cadence of the chiming clock, the whistling wintry wind and pattering of the sleet upon the casement. Hour after hour passed unheeded, and I must have dropped into a gentle slumber. Suddenly a chill, cold, death-like feeling thrilled through me. I was awake, with all my senses acutely on the alert, and found myself standing up and gazing with horror at the alarm bell on the wall near the ceiling, above and in front of me, which was ringing with violent and spasmodic jerks. I rapidly crossed the quadrangle, stumbling over the deep snow and through the driving sleet without candle or lamp. I reached the mortuary, opened the door, a rift in a driving cloud admitted the moonbeams through the window. There, before me, seated on the marble slab, with wide open, staring eyes, his hands held out towards me in an imploring manner, was my friend. "My God! LOUIS, how is this?" I exclaimed, rushing forward and catching him round the waist in my arms. His head fell on my shoulder, his cold lips impinged upon my ear, a rush of cold breath issued from his mouth, I plainly distinguished the word "God," and then all recollection left me.

I am told that several days elapsed before I regained consciousness. The violent ringing of the alarm bell awakened other inmates of the hospital, who at once proceeded to the dead house and found me lying insensible on the floor, grasping in my arms the corpse of my dead friend, whose body lay over me.

COMMENTS BY DR. KNAGGS.

This story, founded on well authenticated facts, is submitted as an illustration of how certain psychical phenomena and physical causes may, in combination, produce what might possibly be construed into supernatural manifestations. In the case of my friend, MAIBEN BROOK, the death of his intimate friend produced a depressed, impressionable condition of his mental faculties. Thus was prepared a suitable condition of mind for unconscious cerebration and expectant attention. It is a well-known fact that corpses of cholera patients are often subject to *post-mortem* muscular movements, especially contractions of the flexor muscles, hence the spasmodic ringing of the alarm bell and the sitting posture assumed by the body. In clasping what he imagined to be his revived friend around the chest, a gush of air was expelled through the mouth, producing a hiss; the interpretation of this into the word "God" was the purely imaginative result of expectant attention, engendered by the singular agreement so impressively written and signed a week previously.

A MIRROR OF PRACTICE.

AN OBSCURE CASE OF LIVER ABSCESS, SIMULATING AN IRREGULAR INTERMITTENT FEVER, ASPIRATION WITHOUT RESULT, *POST-MORTEM* DISCOVERY OF AN ABSCESS ON THE POSTERIOR PART OF THE LIVER.

UNDER CARE OF LIEUT. F. D. S. FAYBER, I. M. S.,
Offg. Staff Surgeon, Civil Hospital, Secunderabad.

(Reported by R. YELLIAH RAJIAH, G.H.M.S., Civil Hospital, Secunderabad).

J. T., an Eurasian male, aged 38 years, photographer by profession, was admitted into the Civil Hospital on 25th December 1900 for chronic fever of two months' duration and diarrhoea.

History.—Was in perfect health two months ago. The fever came on while travelling in the outlying country taking photography. Diarrhoea appeared a fortnight later, and continued more or less in a mild form to the last. The fever in the first month was slight, sometimes absent for two or three days at a time, and did not interfere with his work. Cough, a third symptom, came on a month later, gradually becoming worse. There was no history of dysentery. Suffered from syphilis, rather of a severe type, eight years ago. Had been an opium-eater a long time.

Condition on admission.—He was a lean, nervous subject, almost emaciated in appearance, with an anxious look on the face. Eyes sunken; tongue clean, red and tremulous; pulse quick and compressible; respiration normal; skin moist; urine very high coloured and scanty, contained no albumin or sugar. No pain was complained of anywhere by the patient, except the fever, diarrhoea and the cough, which was very troublesome and annoyed the patient by day and night. He was treated in the Residency Hospital, Hyderabad, for the same complaints without any benefit.

Course.—The temperature on admission was 102.4° F. Lungs healthy, except a few large crepitations at the bases indicative of bronchitis, which was attended with expectoration of a scanty tenacious mucus. Spleen slightly enlarged and tender. Liver not enlarged, at any rate could not be felt beyond the costal arch.

Dulness not altered, nor was there any bulging. Pain or tenderness in the region of the liver or shoulder was never complained of by the patient in the course of the disease, and he could lie in any position he chose. There was no jaundice, no hiccough, and never was any gastric disturbance observed. The abdomen was tender to the pressure, the motions watery, sometimes of a semi-solid consistency, on an average three or four a day, were of a normal colour. The fever was often preceded by rigors, which generally came on in the mornings and was often attended with a deep sinking feeling in the pit of the stomach, so much so, that the patient appeared unconscious for a time. The decline of the fever was

always attended with profuse perspiration, the patient often getting drenched in the clothes.

The temperature was very irregular and variable. From almost a normal temperature for three days from the seventh day to a sudden rise to nearly 104° F., and then from a temperature of 101° F. and downwards for six days to an abrupt rise to nearly 105° F. on the seventh morning, and afterwards an irregular up and down stroke for seven days, and then a gradual rise and remissions for four or five days, mark the different phases of the fever. The remissions or the intermissions sometimes occurred in the mornings and sometimes in the evening. Out of thirty days the patient lived, the normal temperature was reached in 14 mornings and 13 evenings. A want of periodicity as well as uniformity in the curves is a noticeable figure. The temperature in itself did not throw, in the course of the disease, any distinct light as to the existence of suppuration anywhere in the system. However, as the patient was getting worse day by day, and the various remedies administered to check the disease were of no good, a liver abscess was suspected and an aspiratory needle passed at the usual site, i.e., between the seventh and eighth ribs in the mid-axillary line, but with no success. The patient gradually became weaker and died on the thirtieth day, the death being sudden and marked by collapse, the abdomen becoming bloated and extremely tympanitic and the temperature subnormal.

Post-mortem appearances.—The left lobe of the liver was enlarged and extended nearly as far as the fundus of the stomach. The right lobe was also slightly enlarged, both weighing 4lb 4oz. The diaphragm was firmly adherent to the convex surface of the organ. The ligaments on the upper surface being divided, and as the organ was being turned out from its attachments, a quantity of pus was seen to be running from the posterior surface of the liver; the abscess cavity was found to be occupying the posterior, and, to a slight extent, the upper surface of the organ. It was of the size of an ordinary fist, and contained about 8 to 10 ounces of thick flakes of cheesy-looking matter, characteristic of the result of secondary degeneration, and quite unlike the pus of an ordinary liver abscess. Examination of the organ revealed two slightly elevated gummatous nodules on the convex surface of the right lobe, lying two inches apart from each other. On section, another gumma of the size of a small walnut was found in the middle of the interior of the same lobe. The abscess was evidently the result of degeneration of one of the gummatous swellings. The abscess cavity was lined with a distinct layer of pyogenic membrane, and beyond which, with the exception of the aforesaid gummae, the organ was of a normal structure and perfectly healthy.

Remarks.—The case is peculiar, in that (1) there were absent distinct subjective symptoms. The all-important pain, bulging, and the increase of liver dulness and other minor signs of gastric disturbance, were conspicuous by their absence. In fact there was present no sign or symptom on the part of the patient to suspect for the pathological condition of the liver. (2) The irregularity of the temperature with

the absence of distinct up and down strokes of hectic fever gave no encouragement as to the real state of the liver; and so much value would not have been attached to the temperature as a guide had there been local signs or symptoms indicative of the affection. The disease appeared to have been one of an obscure nature running a chronic course, with an irregular intermittent fever presenting no distinct signs of any particular malady; it was consequently taken as a type of an irregular intermittent fever. (3) The unusual site of the abscess at the posterior part of the organ instead of the anterior and outer surfaces, so commonly the seats of tropical liver abscesses, was also a feature of the case. If the needle had been tried on this surface, the rarity of which for an abscess with the absence of distinct local signs precluded the idea of doing so, the abscess cavity would most probably have been hit. The persistent cough that annoyed the patient was no doubt due to the pressure of the abscess swelling on the lung, and it is also not known as to why the abscess did not burst into the contiguous part of the lung which descends so much on the posterior aspect to cover the back part of the liver.

The *post-mortem* examination was undertaken on the advice of Lieut.-Col. C. M. THOMPSON, I.M.S., the permanent Staff Surgeon, who took over charge of the hospital a few days before the termination of the case, and who was persistent in his suspicions that the sudden collapse with extreme tympanitis was surely the result of bursting of a liver abscess; and the *post-mortem* examination revealed the true nature of the condition. Whatever may be the cause of the abscess, either degeneration of a gumma or anæbæ, the latter, from the existence of the chronic diarrhoea and the irregular fever, appears to be the probable factor the case, from its character and bearings, is unique of its kind.

NOTES ON A MILD TYPE OF SMALL-POX (VARIOLA AMBULANS?)^a

By F. MONTIZANBERT, M.D., EDIN., F.R.S.E., D.C.L.

Director-General of Public Health, Ottawa, Canada.

THE Dominion of Canada is now being threatened with, and in some places invaded by, small-pox from her neighbour, the United States. This in itself would hardly call for remark. Communication of infectious disease from one country to another is a very ordinary form of international courtesy. In the present instance, however, the outbreak of small-pox presents some unusual features. It began on this Continent several years ago in the United States; the Southern States especially. It has gradually spread northwards. Its origin is difficult to establish, either as to time or place, with any historical accuracy. It has been attributed by many to returning soldiers from Cuba or from the Philippines; but it is certain that it was prevalent in the United States before the beginning of the war between that country and Spain. The difficulty in tracing back its history is due in great part to the unusual mildness of the type. Many cases, of it were diagnosed as chicken-pox, many as German measles. Many more were not reported to, or seen by, any medical man at all.

^a Reproduced from the *British Medical Journal*.

How extensive is the spread of the disease in the United States may be judged by the fact that the Public Health Reports published officially by the Government at Washington give a total of 11,964 cases as reported present in that country during the period of three months, between December 28th, 1900, and March 25th, 1901.

How mild the type is may be judged by the fact that in these 11,964 cases, only 187 fatal cases are reported to have occurred. This would only be 1.31 per cent. Further, the number 11,964 may, for reasons given above, be taken as very much under the actual number of cases that have occurred, whilst the fatal cases were doubtless all reported. The proportion of deaths to cases was, therefore, in all probability considerably less than this 1.31 per cent.

It has been suggested that the mildness of the type is due to some meteorological condition. Against this theory is the fact that, during the period since its commencement, we have had at least one intercurrent outbreak of a very virulent form of the disease introduced from the Orient. It was quickly limited and stamped out. But in the score or so of cases that occurred, the mortality ran up to over 50 per cent.

The extreme mildness of the present disease has defied from time to time our efforts to prevent its entrance, and has rendered it unusually difficult to handle, control, and stamp out.

Severe cases of small-pox are, as a rule, too ill to leave their bed, and are eager to obtain medical attendance. This leads to notification, isolation, disinfection, and the vaccination of those who have been exposed to the infection; and so we have a reasonable expectation of limiting the outbreak.

But this type offers more difficulty to the Public Health authorities. There is, as a rule, but little initial fever, a very sparse discrete eruption, and no secondary fever. The patient is not usually confined to bed, or even to the house, and no medical man is called in. In the country parts it is very generally regarded and spoken of as chicken-pox or German measles. In many of the lumber camps it goes by the name "cedar itch." Those affected by it go to their work or their business, travel in public conveyances, go from one part of the country to another, not only in the period of incubation, but often also in the early period of the eruption, and thus spread the disease generously and widely. We have had outbreaks of it in several of our provinces and territories from the Yukon to Nova Scotia. It is present in eleven out of the fourteen States of the United States which, from Alaska to Maine inclusive, border on Canada, with an aggregation in them alone of 4,433 reported existed cases. It is present amongst us in several localities at this time.

There is, therefore, grave reason to fear its continuance and spread. Vaccination is not compulsory in Canada as a legislative enactment, although the municipalities have power to enforce it under certain conditions.

That this disease is small-pox is questioned by many. The following facts, however, in connection with it give a reasonable assurance that it is small-pox, and not chicken-pox. It attacks adults quite as often as, or indeed more often than, children. It attacks the unvaccinated, or those who have not been vaccinated for some time. It does not attack those who have been recently successfully vaccinated. Every here and there a susceptible person develops a severe confluent or even fatal case.

The threatening and even the presence of this mild form of small-pox interrupts and interferes more or less with trade and commerce, travel and traffic. It is not, however, an unmixed evil. Many pass through its lenient hands without much illness, pitting or mortality. Many, very many more will be vaccinated for fear of it.

Between the two classes a large proportion of the people of Canada should be rendered immune to small-pox; and so for some years the Dominion may be safe from any severe epidemic of this disease.

A CASE OF ACUTE TUBERCULOSIS: APPARENT ARREST AFTER ELEVEN MONTHS' SANATORIUM TREATMENT: ACUTE RELAPSE AND DEATH IN THREE WEEKS.*

By NOEL DEAN BARDEWELL, M.D., M.R.C.P., ED. & LOND.,
Resident Medical Officer, Dueside Sanatorium, Banbury.

Case.—The patient, A. D., *ætat* 16 (employed in an engineering shop), was admitted to the Infirmary on January 13, 1899. He gave a history of an ischio-rectal abscess eighteen months previously, followed by onset of cough and expectoration, and during the last twelve months prior to admission, he had gradually developed the typical symptoms and condition of acute tuberculosis, *e.g.*, fever, night sweats, and emaciation, etc. Later he had suffered considerably from attacks of diarrhoea and vomiting. On admission, he appeared to be in a hopeless condition, being extremely collapsed, this no doubt largely owing to the diarrhoea which was at that time very severe; in fact, he was too ill to allow of any routine examination being made. After six weeks' treatment the diarrhoea had ceased, and he was carried out into the hospital grounds daily. His report at that time was as follows:—Extensive active disease of both lobes of left lung, with infiltration of the apex of the right upper lobe. Appetite fair, digestion poor, no diarrhoea, considerably less fever than on admission; weight, 4 st. 13 lbs. During the next six weeks he continued to improve, and gained 3½ lbs. in weight. He then had a severe relapse, vomiting and diarrhoea returned, and he soon lost all the weight gained. However, he again rallied, and early in May, after a month in the wards, he recommenced his open-air life in the grounds. Examination of his lungs at that date showed extension of previously existing foci of disease, and infiltration of the apex of the right lower lobe (unaffected at first examination). He had no diarrhoea, and his weight was 4 st. 13½ lbs. All through the summer he made slow but steady improvement, and with careful dieting his tendency to diarrhoea gradually disappeared; but he gained weight very slowly, only 7 lbs. in the fifteen weeks from May to August. During the spell of very hot weather at the end of this last month, he, like many of the other open air patients, lost some weight, and September 1 found him only 5 st. 1 lb. Examination of his chest then showed great improvement, the disease in the upper lobes of both lungs being considerably arrested, with no sign of disease in the lower lobe of the right lung; there was considerable excavation, however, in the left lower lobe. During the next three months he improved remarkably in every respect, and by the third week in November weighed 6 st. 3 lb., a gain of 13½ lbs. in the twelve weeks. He had no fever, except an occasional rise at old times, was walking two miles or more daily, his appetite and digestion were improved, but his diet was still being carefully supervised. There had been no diarrhoea for months, though for a long period indican had been nearly constantly present in his urine in considerable amount. The left side of his chest was very markedly retracted, and practically immobile, the heart being considerably displaced. Breath sounds were almost inaudible over the greater part of the left lung, and moist sounds were limited to the area of excavation in the lower lobe, and there only audible after cough. In the right lung physical signs were those of an arrested lesion with compensatory emphysema. Sputum averaged from 1 dr. to 2 drs., and bacilli were still to be found, as a rule, after careful search. In this condition, on November 26, he left for a convalescent home. There he lived the life of an ordinary convalescent, spent all the day out of doors—walking about on a path, and slept in a room, the windows of which were closed at night. His diet consisted of—breakfast at 8 o'clock,

* Reproduced from the *Practitioner*.

of tea, bread and butter; dinner at 12 o'clock, of meat, potatoes and milk-pudding; tea at 4 o'clock, of tea, bread and butter; supper at 8 o'clock, of $\frac{1}{2}$ pint of boiled milk and bread. During the second week of his stay the diarrhoea recommenced, and this was soon followed by anorexia and vomiting and relapse generally. Unfortunately, no observations were made as to his temperature, weight, etc. At the end of three weeks he returned to his own home—a poor one in the slums—having lost 7 lbs. Three weeks later he was readmitted to the Sanatorium wards in an extremely collapsed condition, suffering from profuse typhoid, typhoid-like diarrhoea, and constant vomiting. Temperature was oscillating between 99° and 101°. He developed the appearance of miliary infection, the larynx became involved, and he died on January 25, rather more than twelve months after the date of his first admission.

POST-MORTEM.

Left lung.—Weight 14½ oz.; extensive pleural and pleuro-pericardial adhesions. Upper lobe: very much retracted, firm, cutting like fibrous tissue, black and dense on section, enclosing a small dry cavity with dense walls at the apex. Lower lobe: extensive fibrosis all through; upper portion, enclosing a cavity the size of a walnut, thick-walled, and nearly dry, and several areas of caseous material about the size of a sixpence enclosed in fibrous tissue. The rest of the lung was almost solid with recent tubercle infection (broncho-pneumonic and miliary.)

Right lung.—Weight 14 oz., apex of upper lobe firm and nodular, enclosing a small cavity containing a firm mass of caseous material. Several other small encapsulated caseous areas scattered through lobe. Lower lobe: much fibrous new formation at apex; extensive recent disease through rest of lobe.

Larynx.—Extensive ulceration

Liver.—Weight 42 oz.; showed fatty and waxy degeneration.

Intestines.—Very extensive ulceration, many ulcers of obviously recent origin, others apparently healed, or in process of repair.

REMARKS.

This patient's history is of interest, on account of the gravity of his condition when first admitted, the length of time (some five months) which elapsed before any permanent improvement took place, the very rapid progress he made during the last three months of his stay in the Infirmary, and the even more rapid relapse which followed his removal from the Sanatorium life. The post-mortem gave proof of the great amount of arrest and repair which had taken place in the lungs, and was of interest as showing how much tuberculous material may be lying quiescent imbedded in fibrous tissue, and give little or no indication of its presence. In cases in progress of arrest "life," as KINGSTON FOWLER says, "may depend on the integrity of a fibrous capsule, surrounding a caseous mass; a condition replete with possibility of evil in the future." It seems probable that the after-history of this case was an example of the possible evil, and though naturally a very guarded prognosis had been given on his leaving the Infirmary, one had not anticipated such a rapid and unfortunate termination.

For kind permission to publish this report, I am indebted to Dr. PORTER, of Sheffield, under whose care the patient was during his stay in the Sanatorium wards of the Sheffield Infirmary, and for assistance in keeping a record of the case to Mr. CHAPMAN.

Indian Medical Record.

26th June 1901.

NEURALGIA OF THE ANO-RECTAL REGION.

THE *New York Medical Journal* publishes an interesting contribution on the somewhat obscure subject of Neuralgia of the Ano-rectal Region by Dr. WILLIAM BADENHAMER, M.D., LL.D., of New Rochelle, New York. We cull the essentials. The writer admitted that this neurosis was often perplexing: for instance, the pain and the irritation of a diseased organ of the genito-urinary system might be communicated to the rectum or anus through reflex nerve action and sensation: the same pain and irritation might also be imparted to the nervous, the respiratory and the circulatory systems by the same nerve factor, and to differentiate between the true primary affection and the false secondary one was a most difficult task if ever correctly accomplished, for both were apparently destitute of any visible pathological change, or of any indication for rational treatment. The author divided the neuralgias of the ano-rectal region into spontaneous, idiopathic, sympathetic and reflex; or, broadly, into primary and secondary, as all sympathetic or reflected symptoms and irritations of disease could be considered secondary and functional.

1. *Primary.*—The rectum or anus was sometimes the seat of a morbid exaltation of nervous sensibility, independently of any perceptible inflammatory action, or any appreciable organic alteration, sympathetic influence or reflex action to account for the extreme pain felt. This was true neuralgia, though its pathology might be obscure and undetected. With it there was usually very slight congestion of the arterial and the venous capillaries of the painful part. The question was whether this slight congestion was the cause of the agonising pain, or the effect of it. The writer was of the opinion that it was the effect of the neuralgia.

2. *Secondary.*—or dependent upon other diseases in its immediate vicinity or in distant parts. The theory of sympathy came in here. As a direct sequence, sympathy always required an intimate and close relationship, and neuralgia of the ano-rectal region was often consecutive to disease in some of the urinary and reproductive organs. The rectum lay in close relation with the prostate gland, vesiculae seminales, bladder and urethra in the male, and with the uterus and vagina in the female, with intimate nerve, arterial and venous connections. Any unusual pain, excitement, irritation, or inflammation of these organs was exceedingly prone to extend itself by sympathy to the rectum. This theory of sympathy, remarked the writer, had in recent years been almost ignored and substituted by that of reflex; both theories were highly essential and important, but each should be confined within its legitimate sphere. The theory of reflex nerve action differed most widely from that of sympathy by not necessarily requiring a closer relationship

with its sequence, and especially by its being obviously of a very intricate and complex nature. It was through the reflex function of the spinal cord and sometimes of the brain that reflex nerve phenomena were brought about. Many morbid conditions of the rectum arose reflexly from uterine disease or from some other diseased organ of the pelvis, and might result in hysteria or even madness: indeed, there was scarcely any organ in the body that was beyond the sphere of reflex influence, and that did not suffer sometimes more or less in these derangements. Painful and important as diseases of the uterus, the rectum, etc., were, it was doubtful whether the reflex or secondary affections which followed in their train, and to which they gave rise, were not equally, if not more, painful and of greater import.

Symptoms.—An undefined sensation of pain in or near the rectum, sometimes sharp, lancinating and paroxysmal, at other times dull and aching: sooner or later the pain extended to the perineum, urethra, vagina, bladder or to the sacral or lumbar regions. The pain often came on at a certain hour and gradually increased in violence to a certain period, and then declined in intensity for a period of time, varying from two to six hours, and left behind it a very distressing sensation of soreness in the rectum or anus. When the pain was either sympathetic or reflex, it was, as a rule, not so agonising and so intolerable as when it was the result of the true primary affection.

Etiology.—Exceedingly difficult: it would really seem that in the majority of cases the cause might be sought for in vain. Even the primary affection could only be positively determined as such after having failed by a thorough exploration of the pelvis to detect any disease in any of its organs. If the legitimate cause of the symptoms was undiscovered and undiagnosable, the treatment would necessarily be palliative, by treating the symptoms merely. The cause might be exposure to cold and damp, especially sitting on cold wet seats; it was doubtless often induced by malaria, and atmospheric changes might also induce neuralgia as well as exert a bad influence on it.

Differential diagnosis.—This was most difficult. The difficulty in the secondary form was that there was no visible connection or relation, and, moreover, the symptoms of the true and the false neuralgias were so much alike that it was most difficult sometimes to differentiate between them and their causes. Neuralgia of the anus or rectum was distinguishable from anal fissure by the absence of any lesion or breach of surface or any other pathological change of the mucous membrane of the rectum, a want of connection between the pain and the alvine evacuation and by the continued pain or suffering. In neuralgia the pain caused by pressure with the finger in anow was not confined to one particular spot as in anal fissure, and the sensory nerves were only affected, not the motor, thus inducing no involuntary spasmodic contraction of the anal sphincters: the pain alone of neuralgia was very severe, but quite independent of contact.

Subjects most obnoxious to neuralgia.—Persons of a nervous and irritable temperament: those debilitated

by accidental or other losses of blood, by diseases of a depressing nature, or by excessive and irregular habits; hysterical, nervous susceptible women and weak hypochondriacal men. The writer took occasion to say that no apparently healthy organ should ever be removed for the purpose of effecting the cure of anal or rectal neuralgia upon the mere presumption of a reflex symptom, unless it could be plainly demonstrated that such an organ was capable itself of producing the reflex action in question. Here the author resited details of two characteristic cases of rectal neuralgia in which painful symptoms and weariness of life had subsisted for a considerable time, in each of which the author had given complete and permanent relief by the removal of a small polypoid growth near the coccyx: he could not account for the manner in which such unusual effects were produced by small tumours, as in these two cases. The writer concluded his paper by remarking that, if in any case of suspected or ambiguous neuralgia of the rectum or anus there was the slightest reason to suppose that the pain was either primary or reflex, a most scrutinising examination of each organ of the pelvis should at once be made under profound anaesthesia to determine it. The numerous and the various facilities of the present day in improved instruments and methods of exploration were so ample for this purpose that no expert should fail in most cases to make a correct diagnosis, and upon that lay the basis of a rational and an effectual treatment.

DISPOSAL OF REFUSE IN CALCUTTA.

A PERFECT SYSTEM OF CONSERVANCY WANTED.

No municipal organisation in any country can take to itself the credit of having mastered the rudiments of sanitation, if it has not a perfect system of conservancy. However true this may be of a village with its widely scattered cottages and thinly populated area, it is more potent in a town or city, where the atmosphere is necessarily thicker, more highly charged with impurities, less often diluted by the currents which diversify its elements in an open space, because of the height and nearness of its residences to each other and the density of its population. However forcible also these facts may appear when applied to a village or town in a temperate climate, where putrefactive changes are slower and their effects less virulent, they are doubly magnified when tropical heat and malarial damp augment all the risks and dangers of neglected conservancy. Proper and effective scavenging and the intelligent disposal of refuse are by no means matters unworthy the attention of our oriental municipalities. Though the customs of this country relegate these important duties to the lowest stratum of social labor, and would tend to smother their discussion by an inherent feeling of obnoxiousness, as something beneath the thought of the cultured oriental mind, still this subject must be studied in all its phases, no matter how unpleasant and uneasy it may be, and those who, having accepted the responsibility, as well as the honour of representing their constituents in the councils of municipal government, are brought face to face with a very serious and onerous duty in this matter, upon the proper realisation and disposal of which depend the health and prosperity of the communities they represent.

WHAT IS TOWN REFUSE?

The refuse of a town is composed of (1) sweepings from paved and macadamised streets and pavements, in which would be included dust, grit, the drawn-up detritus from the sewers and open drains, horse-droppings, &c. (2) House refuse, which contains "hard-core" (or broken pottery, china and glass-ware), leather, rags, paper, dust, nails, old tin, &c. (3) Trade refuse, or the waste materials of various handicrafts, as paper, string, straw, rags, wood-shavings, leather, &c. (4) Market refuse, both animal and vegetable. (5) Kitchen refuse, which includes vegetable and animal products in

various forms. (6) Stable refuse or litter, straw saturated with urine and dung. (7) Dead vermin, animals, and poultry.

It is only the organic vegetable and animal matter in this catalogue of waste products that excites the vigilant attention of the sanitarians, and it is in them that all the virulent morbid potency resides. Few things are so repulsive in appearance, and so deleterious to public health and comfort, as the foul heaps of garbage strewn on our streets, and the vapors which emanate from them. These demand *early and rapid removal*. The Bengal Municipal Act prescribes 8 P.M. to 8 A.M. as the hours within which the removal of refuse ought to be completed. This regulation ought to be rigidly enforced.

HOW TO CARRY OUT EFFICIENT CONSERVANCY.

Rapid removal necessitates (1) a proper and sufficient staff of scavengers; (2) light, easily-managed appliances and conveyances for carrying off the refuse; (3) an efficient, honest, intelligent and trained staff of supervisors; and (4) an enforced system of appreciative help from every householder. No sanitary arrangements will work satisfactorily without energetic and constant supervision. A well-organised body of overseers for municipal work would effect a marvellously beneficial change.

WANTED HONEST OVERSEERS.

We want men who do not despise conservancy, who will observe carefully, act promptly, labouring with a certain pride in their work to secure always the superiority in cleanliness of their district over those of others. We want men who will insist on obedience to rules, and who will bring punishment on the wilfully neglectful.

HOUSEHOLDERS TO HELP.

The inhabitants must be taught to do right by themselves and by their neighbours, just as much in sanitation as in their moral and social bearings. They must be induced to afford intelligent help to the sanitary officers, and these in their turn ought to be punctual and exhibit an earnest desire to protect the sanitary interests of their wards by pointing out and reproving the most trifling nuisances, for it is the aggregation of these that render a locality untidy, uncomfortable, and unhealthy. If the tracing out of preventible disease which led to the discovery of its cause in some glaring, remediable, and unchecked sanitary defect were followed by censure of the responsible sanitary inspector, and in most instances of the householder too, we would see less of cholera, typhoid fever, and many other zymotic disorders.

SANITARY NEGLECT SHOULD BE MADE PENAL.

In short, neglected sanitation ought to be made penal to those directly concerned in a breach of its important laws, with just as much justification as the unlicensed keeping of inflammable substances is made punishable as a source of risk to life. Every householder ought to see that all his own domestic refuse is regularly and properly removed to a certain fixed spot on the street before his door.

HOUSE DEPOSITS AND SCAVENGING.

To prevent the disgusting and objectionable practice of depositing open heaps of garbage on the public thoroughfares, every householder should be compelled to adopt the simple and efficacious remedy recommended by Colonel R. C. STERNALE (the writer of an excellent work on sanitation) of placing his house refuse in a light tub or basket from which the scavenger could, with a great saving of time, empty its contents into his light two-wheeled tip-cart. These carts should be as light as possible, with a capacity of 30 cubic feet, and with a light railing above to permit of the heaping of straw above the load of garbage.

DISPOSAL OF REFUSE—"SHOOT" AND "SIFTING" PROCESSES.

There are two generally accepted and adopted means for the disposal of refuse, namely (1) the "shoot"

process, and (2) the "sifting" process. The "shoot" consists in removing the material by rail or by water, to be shot on some piece of waste land, by means of which marshy and sandy soil, without any commercial value, is reclaimed and made suitable for agricultural purposes. The "sifting" process consists in sorting the various components of the refuse into dust, metallic products, rags, glass, "hard core" (pottery, &c.), and "soft core" (garbage), &c. All these constituents, except the soft core, are saleable. The latter is cremated or worked into manure to render it inoffensive and marketable. Both these processes have been tried in different parts of India, but the generally adopted plan is a modification of the "shoot" process. Very little sorting is done, and the refuse of a city is thrown into pits or tanks or over marsh land.

THE "SHOOT" PROCESS AND THE SALT-WATER LAKES.

In Calcutta the "shoot" method has been adopted in its entirety. The refuse collected from the town is conveyed to huge sidings and packed in open vans to be conveyed to the Salt-Water Lakes, an immense tract of low, marsh land, a few square miles in area and distant about five miles to the east of Calcutta. This process was begun in 1869, and is still being carried on. Much of the land has been thus reclaimed and placed under cultivation.

TANK-FILLING A DANGER.

The filling of large tanks with refuse has been vigorously adopted in this city for the past ten years or more. This method has given rise to several controversies, and the municipality has on three or four occasions been prosecuted in the law courts for its zeal in this direction. The medical profession was divided into two camps over this question, but public opinion was so strongly against it, that the municipality was compelled to desist from any further filling of tanks in the town with refuse. The subject of tank-filling is a large and very important one, and we shall deal with it in a future issue.

DEPOSITS AT THE SALT LAKES NOT A PROVED FAILURE.

The deposit of the town refuse within a few miles of it has long been held to be a practice fraught with considerable danger to the health of the inhabitants, but though many years of experience have tested these fears, no real or appreciable harm has resulted, no epidemic of any kind has had its origin traced to the "deadly square mile" which, besides harboring the unwholesome refuse of the city, is the great cesspool in which the whole of the sewage of this large town, with a population of one and-a-half million, is deposited.

INCINERATION *versus* THE SALT-WATER LAKES DEPOSITS.

It is in contemplation to destroy the refuse of this city by incineration, but the cost is enormous, and the advantages (as compared with the present practice of filling the Salt Lakes, which has not been proved harmful, though abundant condemnation has been heaped upon it), are so theoretical in a tropical climate where incinerators have not been tried, that it is hardly justifiable to launch out on such an expensive experiment, while so many pressing sanitary improvements call for immediate and urgent attention. Cremation is undoubtedly the best and healthiest mode of disposing of such deleterious products, but if other plans (such as the Calcutta one of the Salt-Water Lakes) work satisfactorily, without any appreciable injurious influences, and if their introduction and existence represents an enormous outlay of capital with a well regulated system of works, such as the Calcutta system has, then a huge experimental outlay to inaugurate a new method, no matter how reputedly successful, is altogether unjustifiable, till the method in vogue is proved (and proved by facts, not theories,) to be a failure.

COMMENTS AND NEWS.

IMPORTANT POINTS REGARDING UTERO-GESTATION.

There are wide differences in the figures given by various authorities on the points dealt with in this section. Those given below may, it is believed, be relied upon as being in accord with present English teaching:—

FŒTUS.

Length and Weight at Different Stages of Intra-Uterine Life.

Days.	Weeks.	Length.	Weight.
28	4	4 to 6 lines.	gr. 20.
56	8	15 to 18 "	drs. 2 to 5.
84	12	2 to 3 inches.	1 to 2 oz.
112	16	3 to 6 "	2 to 3 oz.
140	20	6 to 8 "	5 to 7 oz.
168	24	8 to 10 "	1 lb.
196	28	10 to 13 "	2 to 3 lbs.
224	32	13 to 15½ "	3 to 5 lbs.
252	36	15½ to 18 "	} 6 to 9 lbs. or more.
280	40	18 to 20½ "	
287	41	20½ to 24 "	

The length of the fœtus for the first six months of intra-uterine life is (it has been calculated) indicated in centimetres by the square of the number of the corresponding month. Thus, at one month, a fœtus measures 1 centimetre; at two months, 4 centimetres; at three months, 9 centimetres; at four months, 16 centimetres; at five months, 25 centimetres; at six months, 36 centimetres. The variation in the length and weight of children at birth is very great. The average weight at birth is stated to be 6·8 lbs.

FŒTAL HEART SOUNDS.

The sounds of the fœtal heart, 130 to 150 per minute, are best heard at the end of the fourth or beginning of the fifth month, at a point midway between the umbilicus and the left (or less frequently the right) anterior superior spine of the ilium.

FŒTAL HEAD.

Measurements at full term.

1. Sagittal diameters.

(a) The direct, or fronto-occipital (from the glabella to the most prominent point of the occiput) 4·5 inches, with a circumference of 13½ inches.

(b) The great diagonal, or mento-occipital (from the point of the chin to the most prominent point of the occiput) 5·25 inches, with a circumference of 14·25 inches.

(c) The small diagonal, or sub-occipito bregmatic (from a point midway between the occipital tubercles and the foramen magnum to the posterior edge of the great fontanelle) 3·75 inches, with a circumference of 11·5 inches.

2. Transverse diameters.

(a) The great transverse, between the most prominent points of the two parietal eminences, 3·75 inches.

(b) The small transverse, or bi-temporal, 3 inches.

3. Vertical diameters.

(a) From the vertex to the base of the skull—i.e., to the anterior edge of the foramen magnum, 3·75 inches.

(b) From the most projecting part of the forehead to the chin, i.e., the length of the face, 3 inches.

FEMALE PELVIS.

Measurements of.

	Inlet.	Cavity.	Outlet.
Antero-posterior (<i>true conjugate</i>)	4½ in.	4½ in.	5 in.
Oblique ..	...	4½ in.	4½ in.
Transverse	...	5 in.	4½ in.

The external conjugate, usually known as D.B., the diameter of BAUDELOQUE, measured from the first spine of the sacrum to the mons veneris, is 7½ to 8 inches.

The "measurement of the spines," between the external margins of the anterior superior spinous processes of the ilia, is usually about 10 inches.

The measurement between the most distant parts of the crests of the ilia is usually about 11 inches.

The diagonal conjugate, measured from the promontory of the sacrum to the under surface of the symphysis pubis, is about 4½ inches.

GRAVID UTERUS.

Position of Fundus at Different Stages of Pregnancy.

End of 2nd month.	1½ in. above symphysis pubis.
" 3rd "	Midway between symphysis and umbilicus.
" 4th "	½ of distance between symphysis and umbilicus.
" 5th "	Level with umbilicus.
" 6th "	1 in. to 1½ in. above umbilicus.
" 7th "	2½ in. to 3 in. above umbilicus.
" 8th "	¾ of distance between umbilicus and ensiform cartilage.

Thence it continues to rise slightly towards the ensiform cartilage until the last week of pregnancy, when it begins to sink again, in consequence, chiefly, of the fœtus descending more into the pelvis.

GRAVID UTERUS.

Measurements at Different Stages of Pregnancy.

	Length.	Width.	Depth.
At end of 3rd month	4½ to 5 inches.	4 inches.	3 inches.
" 4th "	5½ to 6 "	5 "	4 "
" 5th "	6 to 7 "	5½ "	5 "
" 6th "	8 to 9 "	6½ "	6 "
" 7th "	10 to 11 "	7½ "	6½ "
" 8th "	11 to 12 "	8 "	7 "
" 9th "	12 to 14 "	9½ "	8 to 9 in.

NON-GRAVID UTERUS.

Measurements in Nullipara.

Length from fundus to anterior lip ... 3½ in.

Width at fundus ... 1½ in. to 2 in.

Depth immediately below fundus ... 1 in. to 1½ in.

The cervix is 1½ to 1¾ in. long, 1 in. wide, and 1½ in. to 2 in. deep.

The anterior lip projects 2 in. to 3 in. beyond the os, while the posterior measures from the fornix to its free edge 7 in.

The walls are 4 in. to 6 in. thick in virgins, and 4·8 in. in women who have had children.

The weight in virgins is 1·1 oz. to 1·8 oz., and in fruitful women 3·3 oz. to 4 oz.

A SIMPLE METHOD OF WATER ANALYSIS.

AN examination of potable water should comprise a determination of the following characters and constituents:—

1. Physical properties.
2. Residue left on evaporation.
3. Degree of hardness.
4. Amount of chlorine present as chlorides.
5. Presence or absence of nitrites.
6. Amount of nitrates present.
7. Presence or absence of free ammonia.
8. Amount of oxygen absorbed.
9. Presence or absence of metallic impurities.

The B. W. & Co. Water Analysis Case has been specially designed by J. C. THRESH, M.D., D.Sc., County Medical Officer of Health, to meet these requirements. It contains all the reagents and apparatus necessary to enable a medical man to perform such an analysis of a sample of water as will determine its suitability or otherwise for drinking purposes.

With the exception of Nessler's Solution (which is supplied in glass capsules), the reagents are designated by the distinguishing trade-mark name 'Soloid.' Each contains a definite weight of reagent, and thus represents a definite measure of standardised solution.

The analysis of water is conducted as follows:—70 c.c. of water are used for each test. This quantity is employed because it represents 70,000 milligrammes, and a milligramme, therefore, bears the same relation to 70 c.c. as a grain does to a gallon (70,000 grains).

1. The colour, transparency or turbidity, and odour of the water are noted.

2. The residue left on evaporation is examined.

3. The degree of hardness is determined by means of 'soloid' soap. If by the addition of one of these and subsequent agitation a permanent lather is found, the water possesses four degrees of hardness; if of two, nine degrees, etc. Each 'soloid' preparation represents five degrees of hardness, but one degree must be deducted for the uncombined soap in the lather.

4. The estimation of chlorine in the form of chlorides is effected by means of 'soloid' silver nitrate. Each corresponds to two grains of chlorine per gallon. One of potassium chromate is used to indicate the completion of the reaction.

5. Nitrites are detected by the production of a blue colour when 'soloid' potassium iodide and starch (one), and subsequently 'soloid' sodium acid sulphate (one) are added to the water.

6. If nitrites are absent, 'soloid' zinc dust is added to the former solution, when, from the rapidity with which the blue colour appears, and its intensity, the amount of nitrates present will be indicated. If nitrites are present, the nitrates may be detected by a modification of this method.

For comparative colorimetric estimations of nitrates, 'soloid' potassium nitrate, corresponding to 0.2 grain per gallon of nitric nitrogen, may be used.

7. Free ammonia is detected by Nessler's Solution, which produces a yellow to a yellowish-brown colouration.

8. The oxygen absorbed is estimated by boiling the water, acidulated with 'soloid' sodium acid sulphate, with potassium permanganate, until the colour of the latter is no longer discharged. Each 'soloid' potassium permanganate required to produce this effect corresponds to the absorption of 0.1 grain of oxygen per gallon. If the water upon boiling with the permanganate becomes brown and turbid, it is impossible to determine with accuracy the amount of oxygen absorbed, but this is of little moment, since such a water must always be regarded with suspicion.

9. Metallic impurities are detected by means of 'soloid' potassium chromate (lead), and potassium ferrocyanide (zinc, iron and copper).

A more delicate test for lead—the most frequent and important metallic impurity—is sulphuretted hydrogen. A solution of this reagent may be obtained by powdering one 'soloid' barium sulphide and shaking with 10 c.c. of water,

then adding to this one 'soloid' oxalic acid dissolved in 10 c.c. of water, mixing the two liquids and filtering. In applying this test, 'soloid' acid sodium sulphate (one) is first added to the water, and subsequently a little of the solution of sulphuretted hydrogen, when a brown or black colouration or precipitate will be produced according to the amount of lead present. The amount of the latter may be approximately determined by comparing the colour with that produced by adding sulphuretted hydrogen to distilled water containing a known amount of lead. For this purpose 'soloid' lead acetate may be used, which is of such a strength as to represent ten grains of metallic lead per gallon.

Consideration as to the source of supply, etc., of the water should, of course, supplement the chemical analysis before an opinion is given.

In the analysis of sewage effluents, the estimation of the amount of oxygen absorbed by the organic matter in solution is conducted by means of 'soloid' potassium permanganate (each corresponding to 1 grain of available oxygen per gallon) and 'soloid' oxalic acid (each exactly decolourising one 'soloid' permanganate).

Detailed information for conducting the above tests is given in Dr. THRESH's book entitled *A Simple Method of Water Analysis*, which also fully considers the significance of the data obtained by the analysis of the water and the observation of its properties. Forms are provided with each case on which the results may be recorded.

By this modification of the former methods of water analysis a great saving of time and trouble is effected. The apparatus and the 'soloid' reagents are in an easily portable form, so that the analysis may be conducted at the source of supply if desired. No further laboratory facilities are necessary, and the results are in all respects trustworthy.

PHYSICAL EXAMINATION OF CANDIDATES FOR THE R. A. M. C. & I. M. S.

A CANDIDATE for a commission in Her Majesty's Army must be in good mental and bodily health, and free from any physical defect likely to interfere with the efficient performance of military duty.

The correlation of age, height, weight, and chest girth must be equal, or superior to that given in the following table:—

Age last Birthday.	Height in inches without shoes.	Weight without clothes. lbs.	Chest girth in inches.
16	64	120	33
17	64½	125	36
18	65	130	38
19	65	132	38
20	65	135	38½
21	65	138	39
22	65	140	39

Squint, inability to distinguish the principal colours, or any morbid conditions subject to the risk of aggravation or recurrence in either eye, will cause the rejection of a candidate.

The following additional points will also be observed:—

(a) That his hearing is good.

(b) That his speech is without impediment.

(c) That his teeth are in good order. Loss or decay of ten teeth will be considered a disqualification. Decayed teeth, if well filled, will be considered as sound.

(d) That his chest is well formed and that his lungs and heart are sound.

- (c) That he is not ruptured.
- (f) That he does not suffer from hydrocele, varicocele, varicose veins in a severe degree, or other disease likely to cause inefficiency. A slight defect, if successfully cured by operation, is not a disqualification.
- (g) That his limbs are well formed and developed.
- (h) That there is free and perfect motion of all the joints.
- (i) That his feet and toes are well formed.
- (j) That he does not suffer from any inveterate skin disease.
- (k) That he has no congenital malformation or defect.
- (l) That he does not bear traces of previous acute or chronic disease pointing to an impaired constitution.

FACTS ABOUT INFECTIOUS DISEASES.

	Incubation Period.	Day of the definite illness on which the eruption		Period of Quarantine required after the latest exposure to infection.	Period of infection ceases
		Appears.	Begins to fade.		
CHICKEN-POX	10 to 16 days	1st day and 2 following days.	About 4th	20 days	When every scab has fallen off.
DIPHTHERIA	2 to 10 days	.....	..	12 days	In 4 weeks, if no discharges and no albumen, and bacteriological examination of nose and throat be negative.
GERMAN MEASLES (Roetheln)	7 to 18 days or even longer	2nd to 4th	4th to 7th	20 days	In not less than 10 days from date of rash.
MEASLES	10 to 14 days	4th day. The patient is highly infectious for 2 days before the rash appears.	8th to 7th	16 days	In not less than 2 weeks from appearance of the rash.
MUMPS	10 to 22 days	.....	..	24 days	In not less than 3 weeks, and then only when 1 week has elapsed since subsidence of all swelling.
RINGWORM	.....	.....	..	..	When examination reveals no broken-off diseased hairs.
SCARLET FEVER	1 to 8 days, usually 3 to 5	2nd	8th	10 days	When desquamation and sore-throat and albuminuria disappear, but never in less than 6 weeks.
SMALL-POX	12 to 14 days	3rd or 4th	9th or 10th	18 days	When every scab has disappeared.
TYPHOID FEVER	7 to 21 days, usually 10 to 14	8th or 9th	21st day	..	.....
TYPHUS	5 to 14, very variable	9th	14th	14 days	After 4 weeks.
WHOOPING COUGH.	7 to 14 days	The characteristic whooping may not appear for 3 weeks, although the patient is before then infectious.		..	21 days
					In 5 weeks from the commencement, provided all characteristic spasmodic cough and whooping have ceased for at least two weeks.

REMARKABLE FASTING RECORDS.

SOME twenty years have elapsed since Dr. TANNER, an American physician, went through his famous fast of forty days' duration, and in the interim this record has been more than eclipsed, as the following facts will demonstrate. SUCCI, a native of Italy, abstained from all food for the space of forty-five days; after performing this extraordinary feat in London he betook himself to New York and repeated the process in that city, where his "show" attracted many thousands of spectators; soon after the foregoing event a Frenchman, named JACQUES, challenged SUCCI to fast with him, on the understanding that whoever of them was able to abstain the longer from food should receive the entire gate money. SUCCI refused to enter this extraordinary competition, whereupon JACQUES evinced his superiority by fasting for less than fifty days, thus beating his rival by five clear days. These figures, however, are compelled to retire into the background when we examine the case of a French convict known as GILLAUME GBANIE, who for sixty-three days refused to touch food of any kind, drinking, however, several pints of water per diem. At the close of the three months' fast he expired in the last stage of exhaustion. A lady who recently passed away in Euston, Pa., had eaten nothing, according to the statement of her husband and physician, for over six months, the nature of her illness preventing the swallowing of food, either liquid or solid. How life was sustained under these circumstances was a puzzle which the wisest medico could not explain. It is reported that certain of the Indian fakirs are able to live for many months without nourishment of any kind, and that one of this weird body actually abstained from food for a period of ten months, during which time he lay in a species of trance. The longest fast on record is attributed to a young woman, a native of Market Harborough. Local gossip states that this maiden fasted from April 1874, until December 1877, her only nutriment throughout the entire period being the drug known as morphine. However, the figures in question would appear so astounding that the writer would not care to vouch for their accuracy.

JAIL COMPARISONS IN BENGAL AND ASSAM.

THE *Englishman* says:—His Honor Sir JOHN WOODBURN is evidently of opinion that the curtailment of reports can be carried too far. In a Resolution of the Bengal Government upon the report of the Inspector-General of Jails for 1900, published in the *Calcutta Gazette*, Mr. C. E. BUCKLAND writes:—"The jail report for the year is conspicuous for its shortness, but the Government of India never contemplated such compression that cardinal points in the administration of a department escape mention by the reporter." That there was some cause for these remarks is apparent from the fact brought out elsewhere in the Resolution, that while the mortality in Bengal jails was higher than it has been since 1894, no explanation of the phenomenon was offered in the report, and the Inspector-General's attention had to be specially invited to it by Government. Colonel MAIR then explained that the year was abnormally unhealthy all over the Province; that cholera was very prevalent in jails; and thirdly (perhaps the most interesting reason) that a number of the most experienced Superintendents of Jails were absent from their posts. This part of the Resolution is worth reproducing *in extenso*:—

"The Inspector-General of Jails also attributes part of the high death-rate of the year to the absence of many of the

most experienced Superintendents. Owing to the recall to military duty of so many officers, only 19 of the 48 jails of Bengal were under the charge of officers of the Indian Medical Service; the others were under the superintendence of Military Assistant Surgeons, native Assistant Surgeons, or medical men temporarily engaged, who, though they may be sufficiently careful in their treatment of the sick, are not equally attentive to all the little details of management on which to so great an extent the healthiness of a jail depends."

This may be true, but, as the Bengal Government observes, other Provinces suffered from the same disadvantage.

MALARIA INVESTIGATION IN INDIA.

THE *Englishman* says:—The delegates of the Malaria Committee of the Royal Society, Drs. STEPHEN and CHRISTOPHER, have been to Simla to arrange a plan of campaign in consultation with the Surgeon-General with the Government of India. The main object of the visit of these gentlemen to India was to seek for and investigate cases of black water fever, the most deadly disease of Europeans in Central and West Africa, some cases of which have been reported from the Duars and Sylhet and other malarious localities in India. The delegates also met in Simla the Principal Medical Officer, His Majesty's Forces; and the following plans of work have been arranged in consultation with the Sanitary Commissioner with the Government of India:—Mr. CHRISTOPHER goes to Mian Mir and Amritsar to make the preliminary arrangements for an autumn campaign (in co-operation with the medical officers of military cantonments) against malaria. After thus arranging, Mr. CHRISTOPHER will then join Dr. STEPHEN in Calcutta, by which time Captain S. P. JAMES, I.M.S., will have returned from China to join them. They will then go to the Darjiling Terai and the Duars to investigate black water fever. We congratulate the Surgeon-General with the Government of India on his foresight and promptness in thus assisting the Committee of the Royal Society. We are also glad to find that the military authorities are showing themselves alive to modern progress. Isolated efforts of individual officers have pointed out the way, but without the co-operation of the military authorities little can be done in preventing malaria in cantonments. A Glasgow millionaire has placed unlimited funds at the disposal of Major RONALD ROSS to enable him to fight malaria in West Africa on the lines indicated by the mosquito theory. It is quite time that some official action be taken on the same line in India, for without that the numerous cases of individual effort can avail little. We have every hope that the work now to be commenced will be attended with results of value to the health of the whole community.

THE EDEN SANITARIUM, DARJILING.

THE following resolution on the report on the working of the Eden Sanitarium and Hospital for the year 1900, dated Darjiling, the 12th June, appears in the *Calcutta Gazette*:—The convalescent side of the Eden Sanitarium at Darjiling remained open from 11th March to 8th November 1900, and the hospital portion throughout the year. The number of admissions fell from 428 to 334—a number lower than the lowest figures recorded during any of the past ten years. The decrease occurred among the patients admitted to the second and third classes, and is attributed to the reduction in the number of visitors to Darjiling caused by the disaster of 1899. The admissions in other classes show an increase. Of the 334 persons admitted during the year, 280 were patients and 104 relatives and friends, against

352 and 76, respectively, in the previous year. The daily average number of patients shows a decrease from 88.64 to 21.17, and the average length of time spent by each patient in the institution was much less than in the previous year. Debility and malarial fever were as usual the most common complaints, and accounted for 70 and 97 admissions respectively. Four patients died against ten in 1899, while 15 left relieved and 261 completely cured. The total number of operations shows a slight reduction, *viz.*, from 84 to 80, but all of them proved successful. Nine persons at different times occupied free beds against 12 in the previous year. As remarked last year, there is still plenty of room for public charity to supplement and extend this most useful form of help. The total income of the institution amounted to Rs. 27,799 against Rs. 36,800 in 1899, thus showing a decrease of Rs. 9,001, which is due to the reduction in the number of patients. The expenses, on the other hand, rose from Rs. 34,398 to Rs. 35,372, chiefly owing to the inclusion of Rs. 4,709, cost of fittings and furniture of the Surgical Block lately purchased. The year closed with a balance of Rs. 4,849. The average daily cost of diet per patient was the same as in the previous year, *viz.*, Re. 1-6.

THE PASSING OF PRESCRIPTIONS.

DR. LAUDER BRUNTON says:—We find that patients will pass on to a friend a prescription which has done them good, and sometimes, I am sorry to say, doctors also will do very much the same thing, disregarding the fact that in different cases the prescription will have very different results, and while it is beneficial in one, it will be injurious in another.

I never hear of a prescription being handed on in this way without thinking of the old story of two donkeys. You may not all have heard of it, and it will explain to you what I mean, perhaps, better than any other words of mine. Two donkeys lived in a stable. On day one of the donkeys was taken out by its master and laden with a lot of salt. On the journey they had occasion to ford a river, and the river being flooded, the water reached the saddle-bags and melted the salt, which, of course, then poured out of the saddle-bags, so that when the donkey reached the other side, it found, to its great delight, the weight on its back had almost entirely gone. It came back very much delighted, and told the other donkey what had happened. It said: "If the master takes you out with a load, be sure that you go through the water, because it will take the load quite away." The next day the other donkey was taken out and laden also. It made a long detour to try and get through the water. It went through the water, but to its great disgust it found that instead of its load disappearing, it became many times heavier than before, because the load on the second donkey consisted not of salt, but of hay, which absorbed the water instead of melting, and thus the last state of that donkey was ten times worse than the first. And so it may be with patients who swallow physic, either because they have seen it puffed in an advertisement, or because a friend has handed them a prescription without knowing whether the physic or the prescription is suited to their own particular case or not.

OFFICIAL RECOGNITION OF CASE REPORTING IN BENGAL.

In his interesting Annual Report of the Hospitals and Dispensaries of Bengal for 1900, Colonel T. H. HENDLEY, C.I.E., I.M.S., Inspector-General of Civil Hospitals in Bengal, says:—"In conclusion, I subjoin a list of papers on professional subjects by District Medical Officers. I need not

repeat my remarks made last year as to the value of these contributions. I trust that in future there will be many additions to the list :—

To the *Indian Medical Record* : (1) "Radical cure of Hydrocele," by Military Assistant Surgeon J. R. RODRICKS, Medical Officer, E.B.S. Railway, Sara; (2) "A Curious Dental Accident," by Military Assistant Surgeon J. C. GILLMON, L.S.A., Lond., House Surgeon, Mitford Hospital, Dacca; (3) "A Case of Double Compound Comminuted Fracture of Humerus and Radius, complicated by rupture of Radial Artery. Recovery;" (4) "A Real Case of Snake-bite : Treatment : Recovery," both by Senior Assistant Surgeon BIPIN BEHARI GUPTA, Medical Officer, Dumraon Dispensary, District Shahabad."

It is clear from the above official extract that the publication of professional papers in this journal is distinctly recognised and appreciated by the highest medical authority in Bengal. We desire to thank Colonel HENDLEY for this kindly encouragement to medical journalism.

EXAMINATION OF SEWAGE AND SEWAGE EFFLUENTS.

The examination of sewage effluents is now frequently required in order to ascertain whether the processes employed for the purification of the raw sewage are effective and produce the desired results.

A general or complete examination of sewage may be conducted in the same manner and with the same reagents as described for water analysis, although the results must naturally be judged by totally different standards.

When a sewage contains a comparatively small amount of refuse from factories, and is chiefly of a domestic character, particular importance is attached to the determination of the oxygen-consuming power of the organic matter in solution. For this purpose the following reagents are used :—

'Soloid' potassium permanganate, each representing one milligramme of available oxygen.

'Soloid' oxalic acid, each capable of exactly decolourising one 'soloid' potassium permanganate.

'Soloid' acid sodium sulphate, as used in water analysis.

For the method of using these reagents and the interpretation of the results, reference should be made to the section on Sewage and Sewage Effluents in Dr. THRESH'S book : *A Simple Method of Water Analysis*, second edition.

AVERAGE WEIGHTS AND MEASUREMENTS OF ADULT HUMAN ORGANS.

Heart.—Weight, male, 10 oz. to 12 oz.; female, 8 oz. to 10 oz. Measurement, 5 in. long, 3½ in. broad, 2½ in. thick.

Lungs.—Weight, right, 23 oz. left 19 oz.; [very variable.

Stomach.—Weight, 4½ oz. to 5 oz. Measurement, 10 in. to 12 in. long, 4 in. to 5 in. wide.

Liver.—Weight, 45 oz. to 60 oz. Measurement, transverse, 10 in. to 12 in., antero-posterior, 6 in. to 7 in. ~~Measurement, 10 in. to 12 in., antero-posterior, 6 in. to 7 in.~~

Pancreas.—Weight, 3 oz. Measurement, 6 in. to 8½ in. long, 1½ in. broad.

Spleen.—Weight, 5 oz. to 7 oz. Measurement, 5½ in. long, 3 in. broad, 1½ in. thick.

Kidney.—Weight, 4½ oz. to 5½ oz. Measurement, 4 in. long, 2½ in. broad, 1½ in. thick.

Brain.—Weight, male, 50 oz.; female, 44 oz.

The average weight and size of all these organs is less in the female than in the male.

[Details of measurements of the uterus, measurements and positions of the gravid uterus, measurements of the foetal head, and of the female pelvis will be found in the Section entitled 'Utero-gestation.']

WENDELL HOLMES : THE AUTOCRAT'S HUMOUR.

ABOUT 50 years ago, the late Dr. OLIVER WENDALL HOLMES read a poem at a medical supper party, which has not seen the light of day since. The following extract from it is the testimonial of the Revd. JUDAS JONES to a Miraculous ointment :—

Dear Sir : The blessing of the Lord attend
You and your ointment called "The Loafer's friend."
My worthy wife, the partner of my toils,
Like Job of old, has suffered from the "bolls;"
Some on her fingers, wherewithal she knits,
Some on her person whereupon she sits,
Which quite unfit her, when her ail returns,
To do her duties by her small concerns.
Since times are hard and earthly comforts dear,
And gospel harvests come but once a year,
With my good Deacon I resolved to halve
One precious box of your unrivalled salve.
With Heaven's kind blessing and one hearty rub
We chased away the leprous Beelzabub.

MUNICIPAL MEDICAL RELIEF.

Indian Engineering says :—Dr. WEIR, the late Health Officer of Bombay, strove hard to get the Bombay Corporation to accept their legitimate responsibility of affording free medical relief, but the Corporation viewed the matter in the light of a philanthropic abstraction which was impracticable in their financial difficulties. Dr. TURNER, the new Health Officer, however, appears on the fair way to succeed where his predecessor failed. He has brought the matter to notice again in connection with the registration of births and deaths, and has been lucky enough to secure the powerful support of the Hon'ble Mr. PEROSHAN MEHTA, who got the Corporation to agree to ask Government to relieve them of the police charges, so that they might perform the more legitimate duty of dispensing free medical relief. The request is a proper and a moderate one, and we shall be glad to see it acceded to; but we have our doubts. Nothing, we are afraid, will induce Government to relieve the Corporation of the police charges.

POWER OF VANITY.

DR. STELLEVAG, the famous oculist, in the course of a lecture to his students at Vienna, told a pretty story of the late DON PEDRO of Brazil. He said that he had had many opportunities of conversing with the late ex-Emperor, a man whose heart and mind were always filled with plans for improving the condition of the people. It was one of his dearest wishes to have a big hospital in Rio, but he lacked the money wherewith to build it, and the wealthy could not be induced to subscribe. Then an idea came to him. He began to bestow titles. Any man who was willing to give a good round sum to the hospital could call himself a "Count," "Viscount," or "Baron." The patent of nobility was not hereditary, and if the children wished to inherit the father's title, they had to pay over again. Rio was suddenly peopled with nobles, and the hospital was built on a grand scale. When it was completed, the Emperor placed over its gates :
HUMAN VANITY TO HUMAN MISERY.

A WOMAN'S SUCCESSFUL MEDICAL MISSION WORK IN INDIA.

Our contemporary, the *Bombay Guardian*, writes:—Amongst the many Indian Mission "Reports" lying on the Editor's desk awaiting review has been that of the North India School of Medicine for Christian Women at Ludhiana. This useful Institution—a mission itself and also the handmaiden of many other missions—is now in the seventh year of its existence, and its work in 1900 seems to have resulted in greater success than in any previous year. The first two classes of medical students, four girls in each, who had studied in English and Urdu respectively, all passed the School Final Examinations, and also hold the Government certificate for midwifery, which was obtained at an examination at Lahore. These eight girls, with the exception of one who is not yet located, are all working in various missions. Two compounders have also passed out of the School, and six nurses have completed their training; twenty-eight girls are now in training. The work at Ludhiana includes the Memorial Hospital, which was opened in November 1899, and in which, during nine months, 259 in-patients were admitted; the Charlotte Hospital, in which, during 12 months, 652 patients were treated; a large amount of outside medical work and the evangelistic section in which two lady missionaries visit the patients in their homes, often taking long journeys to find them. The patients come from far as well as near. Miss ASHBY writes, of "some" travelling one hundred and fifty miles to see the lady doctors. Dr. EDITH BROWN is the founder and Principal of this successful work, her efforts being ably supplemented by at least four other lady doctors.

MEDICAL RECIPE FOR A LADY PATIENT.

The following lines are from a volume entitled *Poems and Sonnets* by the late Dr. JOHN SWANWICK DRENNAN, of Belfast:—

By a patient too fair sat a doctor too young,
With eyes more intent on her lips than her tongue;
He tested her heart, as her pulses recorder,
But, alas! in his own was the latent disorder:
And soon from the region in which it was bred
This sad tremor cordis so muddled his head
That, instead of some Physic to mend her condition,
He urged as a Recipe: "Take your Physician!"

SHORT ITEMS AND PERSONALITIES.

In view of Dr. Buchanan's discovery of what appears to be arsenical beer-poisoning at Nagpur, it has been decided by the Government of India to have all the beer issued to the troops, whether imported or brewed locally, periodically subjected to chemical analysis by the sanitary officers of the Commands.

The Bombay Government have issued a resolution on the subject of providing training in sanitary science for students who have passed through the Medical and Engineering Colleges of the Presidency. A Committee has been appointed to prepare a scheme.

Major Ronald Ross sailed on 10th June from Liverpool to Sierra Leone for the purpose of conducting further experiments bearing on the prevention of malaria by the extermination of the *Anopheles* mosquito.

The General Medical Council has drafted Bills to prevent limited companies practising medicine and dentistry, and has asked the Lord Chancellor to introduce them to Parliament.

The Royal Colleges of Physicians and Surgeons in England no longer require candidates for their diploma to be registered medical students.

Miss Hutchinson, L.M.C.P. & S. Edin., one of the ladies in charge of the Church of Scotland Medical Mission at Gujerat, Punjab, has been invalided home.

Colonel T. S. Weir, I. M. S., late Health Officer of Bombay, has arrived in Bombay from Quetta, and will remain there for about a month.

The following Officers are granted the Volunteer decoration:—Major MacLaren, I.M.S., and Captain Puech, of the Muzoorie Volunteer Rifles.

Military Assistant Surgeon F. J. Daley is appointed to act as an Assistant Health Officer of the Port of Calcutta.

VITAL STATISTICS OF CALCUTTA.
Statement of Deaths from Principal Diseases in Calcutta from the 25th May to the 15th June 1901.
EXISTING MUNICIPAL LIMITS.

Year.	Week ending.	CHOLERA.		PLAGUE.				Small-pox.	Fever.	Bowel com-plaints.	All other diseases.	Total.	Total population according to the Census of 1901.	Ratio per 1,000 of population per annum.
		Sporadic.	Epidemic.	Sporadic.	Deaths.	Seizures.	Deaths.							
1901	25th May	65	..	..	47	48	..	25	95	47	176	455	281	28.1
	1st June	67	..	..	50	55	..	14	90	38	186	445	27.1	27.1
	8th "	63	..	..	40	..	..	12	117	36	103	431	843,487	26.6
	15th "	50	..	..	48	29	..	6	85	29	161	382	23.6	23.6

J. N. COOK, D.P.H., Health Officer of Calcutta.

NATIONAL ASSOCIATION FOR SUPPLYING FEMALE MEDICAL AID TO THE WOMEN OF INDIA.

COUNTESS OF DUFFERIN'S FUND.

THE following letter from Colonel E. H. FENN, C.I.E., R.A.M.C., Honorary Secretary to the Dufferin Fund, has been addressed to all the committees of this Fund:—

I am directed to address you on the subject of the action to be taken to give effect to the objects of the Victoria Scholarships Fund. Before leaving India, Her Excellency Lady CURZON appointed a Sub-Committee consisting of the following gentlemen:—

Surgeon-General Spencer, C. B.

Mr. H. H. RINLEY, C.I.E.

Mr. F. S. COWIE, I. C. S.

Lieutenant-Colonel FENN, C.I.E. (Honorary Secretary), to discuss questions connected with the Fund, and to endeavour, in communication with the Provincial Committees, to frame a definite scheme for applying to the best purpose the income likely to be available. It was Her Excellency's desire that the proposals of the Sub-Committee should be laid before her on her return to India in October, so that, if possible, a final decision might then be arrived at.

2. The Sub-Committee have considered the scheme stated in general terms in the enclosed note by Mr. H. H. RINLEY, and are disposed to accept it provisionally as a basis for further discussion. You will observe that it contemplates the training of two kinds of midwives—a superior class, and an inferior class—whose qualifications would necessarily differ in very material respects.

3. It has from the first been one of the objects of the Dufferin Fund to encourage and contribute towards the education of the superior class; but the information available as to the results of their efforts, and those of the Provincial Committees, is not so complete as might be desired. So far as the Central Committee are aware, arrangements for the training of those midwives exist at the following places:—

In Bengal, at Calcutta (Eden Hospital and Campbell Medical School.)

In Berar, at Amraoti.

In the Bombay Presidency, at Bombay (Cama Hospital), at Bijapur, Sholapur and Hyderabad in Sind.

In Burma, at Rangoon.

In Central India, at Bhopal.

In the Central Provinces, at Nagpur.

In the Madras Presidency, at Madras.

In the North-Western Provinces and Oudh, at Agra, Allahabad, Benares, Lucknow and Rampur.

In Rajputana, at Jaipur and Tonk.

In Travancore, at Quilon.

But the materials at their disposal are not full enough to enable the experience gained at these various institutions to be brought to bear on the questions which now have to be considered. I am accordingly to request that the Sub-Committee may be furnished, for the information of Her Excellency Lady CURZON, with a report on the following points:—

(1) What institutions exist in—for the training of midwives?

(2) When was each of them founded?

(3) From what castes or classes are the students drawn?

(4) What preliminary educational qualifications are required?

(5) What is the system of training in each institution, and by whom is it conducted? Full particulars should be given as to the course, the text-books used, the amount of clinical teaching, the number of deliveries attended, etc.

(6) How many midwives have been trained at each institution, and what has become of them after they left? State, if possible, among what classes they practice, what fees they receive, and whether they work in town or in the country.

(7) What is the monthly cost of maintaining the midwife class at each institution? Details should be given showing—

(a) Stipend of students.

(b) Payments to teachers.

(c) Cost of models.

(d) Cost of books, etc.

4. As regards the indigenous class of midwives (*dais* or *dhaia*), I am to invite a full expression of opinion on the question to what extent, and by what means, they can be brought under training and their traditional methods improved. The Sub-Committee will be specially glad to receive information on the following points:—

(1) From what castes or classes are the indigenous midwives in—ordinarily drawn?

(2) Is their occupation usually hereditary, and are they attached to particular families or villages?

(3) Describe their method of dealing with (a) ordinary, (b) difficult, cases of labour.

(4) What are their methods of treating mother and child after delivery?

(5) How is their knowledge of the subject acquired and transmitted?

(6) How are they paid, and by what classes are they employed?

(7) At what centres in—would it be possible to carry on the training of indigenous midwives? How could they be induced to attend, and what stipends would it be necessary to pay them? Detailed proposals for working the scheme suggested should, if possible, be drawn up. It might be advisable at starting to select one or two places where conditions are specially favourable and to restrict operation to these.

5. In the matter of suggesting possible training centres for this, the inferior class of paragraph 2 above, it should, the Sub-Committee think, be borne in mind that the instruction which these *dais* may be expected to assimilate will be usually of a quite rudimentary character, and that medical institutions of an importance much inferior to that of those referred to in paragraph 3 above, such, for instance, as dispensaries with female wards, would serve a useful purpose in assisting their training. The object, in fact, is to disseminate, as widely as possible, the modicum of knowledge which it is possible to impart.

6. I am to request that your reply to this may be despatched so as to reach the Sub-Committee by the 31st August next.

VICTORIA SCHOLARSHIP FUND.

There seem to be two possible lines of action which admit of being followed concurrently, and which would react on each other—

(i) To train up midwives of a superior class.

(ii) To endeavour to impart a certain amount of practical knowledge to the indigenous midwives (*dhaia*).

2. The former course presupposes a certain standard of education among the women who are trained. They must be able to read and write, and be capable of understanding lectures and studying simple text-books. It is therefore out of the question, until the number of educated women in India has very greatly increased, that

the number of highly trained midwives should be anything but infinitesimally small in relation to the possible demand for their services. I have not been able to make out from the reports how many midwives of this class have been trained since the Dufferin Fund was started, or what became of them. It would be interesting to have a report on the subject from the various training centres. If the Sub-Committee agree that such a report is desirable, its form ought to be carefully considered, a statement prescribed, and specific heads laid down on which information is to be furnished within a given time. When we know exactly what results have been attained in the past, we shall be in a better position to frame proposals for the future.

3. The second of the two courses mentioned above would be, I believe, an entirely new departure. The general idea would be to get hold of as many as possible of the indigenous hereditary midwives (82,589 according to the census of 1891) and induce them to attend at Dufferin Hospital, or at the female divisions of ordinary hospitals or dispensaries, for the purpose of acquiring such empirical knowledge as it is possible to impart to them. In comparison with training of the regular midwife class, the amount of such knowledge would be very small, but the women themselves, or some of them, would start with a certain practical acquaintance with the subject and would probably learn quickly. Even if at first only negative results were obtained, and the trained women merely abandoned or discouraged in sanitary practices, such as pressing the mother's stomach to hasten delivery, lighting a charcoal fire under her bed, cutting the navel-string with a bit of bamboo, excluding fresh air from the lying-in-room, etc., the gain would be great. In time they would learn more, and whatever they learned would spread over a far wider area than we can hope to reach by means of the superior class of midwives.

4. Although, as I have said, there is no exact precedent, the course of action suggested is somewhat analogous to that which has been successfully adopted in the case of village schoolmasters and vaccinators. Primary education has flourished most where the indigenous "pathshala guru" has been taken in hand and improved, and vaccination has made the greatest progress where the hereditary inoculators, usually Malis or Sirdurias, have been induced to substitute vaccination for inoculation without abandoning that characteristic worship of Sitala, the goddess of small-pox. In either case the principle is the same as that on which I suggest we should proceed, namely, to make the best of actual facts and existing agencies. The religious or demoniac element comes in here too. The precautions taken to scare away Satvai or Chhathi, the goddess of infantile lockjaw, correspond to the worship of Sitala in vaccination, and as they are harmless in themselves, would not be interfered with.

5. For both sets of proposals we ought to be able to secure very cordial co-operation, both by way of money and of personal influence and exertions, from natives of all classes. As long ago as the fourth century A. D., India possessed in the *Susruta Samhita*, a treatise on midwifery, which a well-known specialist describes as a thoroughly rational system of medico-surgical teaching based upon accurate observations of nature. The same writer refers to the barbarous character of the modern treatment of child-birth in India and observes:—The degradation of the art of midwifery among the Indians to so low a stage must be ascribed in part to the caste prejudices of the people. The proposal sketched above are in effect a revival of Vedic tradition and practice, and as such should receive enthusiastic support from all patriotic Indians.

H. H. RISLEY.

1st June 1901.

Current Medical Literature.

MEDICINE.

Interesting Case of Splenic Anæmia.

HERBERT MAXON KING, (*Medical News*) reports this case. The patient was a woman aged forty years, born in England. Her mother died at the age of fifty-eight of an "obscure trouble in the left side." The patient had never lived in a malarial district, and gave no suggestion of syphilitic taint. She stated that she was always perfectly well until July 1899. At this time, in order to relieve constipation, she took some sample pills, after which she had a severe diarrhoea, and passed, at times, considerable blood. Her friends stated that for several years she has had a "peculiar, pale-yellow color." She was not emaciated. She complained of gripping abdominal pain, diarrhoea, and extreme prostration. There were puffiness under the eyes and oedema of the lower extremities. She had a peculiar yellowish pallor. The abdomen was not prominent. Palpation of this region did not elicit pain. The liver was not perceptibly altered in size, shape, or feel, although the left lobe was palpable. The spleen, enormously enlarged, retained the contour of a spleen, even to the notch in the anterior border. It filled nearly the whole left half of the abdomen. Palpation of this mass did not cause pain. The urine was of a low specific gravity, deficient in salts. On October 12th, blood examination gave the following results: Quantitative: red corpuscles, 875,000; leucocytes, 3,150; hæmoglobin, '15 (VON FLEISCHL); color index, 86. Differential computation of leucocytes: Small lymphocytes, 22½ per cent.; large lymphocytes, 8 per cent.; polymorphonuclear neutrophils, 61 per cent.; eosinophiles, 0; transitional forms, 4½ per cent.; myelocytes, 4 per cent. Qualitatively the blood evinced destructive changes of a character more profound than the author has ever noted in any condition except that of pernicious anæmia. There was marked poikilocytosis, as well as polychromatophilia, macro and microcytosis. In counting 200 leucocytes, there were noted nucleated red corpuscles as follows: Normoblasts, two; megaloblasts, thirteen; and other anomalous forms, five. The splenic blood differed in no essential feature from the peripheral blood. The patient died the following December, and autopsy was unobtainable.

Remarks on Senile Dementia.

C. NORMAN, F.R.C.P.I., says:—The dementia of old age is more common among old women than among old men, and the intellectual classes suffer less than those who do not use their brains. The influence of alcohol in producing premature senility in all the organs is well known; it is not least marked in the brain. Usually early cases of senile dementia have often a history of alcoholism. Its onset is usually gradual, yet in some cases it may be apparently rapid, the disease not having been previously noticed. Some mild intercurrent affection may light up the smouldering fires. The author reports five such cases due to apparently slight moral or physical causes. Of late years, influenza has been frequently assigned as a cause of senile dementia. Marked general excitability often ushers in the disease, and the senile dement is usually active for a long time. The patients are often more vigorous muscularly than most men of their age, and so require careful watching. There is a special tendency to nocturnal excitement and insomnia. Hypochondriacal delusion is frequent; it may be grotesque or

melancholic in type. Notions of suspicion are prominent in many cases, forming a clinical picture intermediate between the pantophobia of the melancholic and the persecutory ideas of the paranoid. A special form is the dread of being robbed. Organised delusion of persecution is very rare however. The tendency to fabulise is sometimes present. The most usual characteristic feature of the affection is the peculiar form of amnesia which exists therein. Memory for recent events is impaired to obliteration; memory for distant events being relatively intact or even over-active. Aphasia and paraphasic states are commoner than has been thought, names and parts of speech being often completely lost. A tendency to disorientation is always present in this disease: the patients will deny that they are in their own house, etc. A common symptom in early cases is a tendency to sexual excitement, showing itself by exposure, by indecent liberties with children, etc. Such sexual proclivities are due to those residual feelings originating in the sexual nerves, which most likely never become absolutely extinct.

Cardiac Syphilis.

W. ZYDLOWICZ (*Klin. therap. Woch.*) points out that syphilis shows a certain predilection for the circulatory organs. In many people, especially the aged, there will be found an arrhythmic pulse a short time before the appearance of the roseola, which in itself is of slight importance, since it disappears with specific treatment, yet it considerably modifies the prognosis. Later, changes in the heart may take the form of an interstitial myocarditis, depending on an obliterating endarteritis or on gummata or on both together. The pericardium, endocardium and the valves are only involved later by continuity. On physical examination, nothing, as a rule, is found except arrhythmia and a moderately enlarged heart, and most cases are put down as neurotic. Yet the correct diagnosis is of great importance, since a cure is easy in the earlier stages, while later sudden death is very apt to follow. The author relates an interesting case in which mercury and iodide of potassium led to a complete cure.

Pericardial Effusions.

F. APARTI and P. FIGABOLI have repeated the experiments of DAMSCH (previously abstracted from *Zeitschrift f. klin. Med.*), excepting that instead of removing portions of the ribs they introduced a canula directly into the pericardium and injected agar solutions through this. Their conclusions are that pericardial effusions can be determined to be present by percussion only when they have reached 150 to 200 cc. in amount. The maximum amount "which can collect" in the pericardium is 600 to 700 cc. In the horizontal position the cardiac dullness is widened in all directions proportionately to the amount of the effusion. In the vertical position the increase is chiefly in the region of the apex beat and in the heart-liver angle; in the horizontal position even small exudates surround the great vessels to some extent. In the vertical position the base remains free even with large exudates. [Certainly the statement as to the amount that can collect in the pericardium is an error—either in wording or in fact—700 cc. may be the largest amount that can be forced into a normal pericardium in a dead subject, but that it is not the largest amount that may collect in disease is sufficiently clear to the reviewer, since he has removed as much as 2,300 cc. from the pericardium at necropsy.]

Diabetes Mellitus in Children.

L. F. W. HAAS (*Journal American Medical Association*) says that diabetes occurs more frequently in children than is generally supposed. Urinalysis is just as important an element in the scientific diagnosis of disease in children as it is in adults, and it is greatly to be regretted, says the writer, that the general practitioner rarely realises this fact. There is a possible etiologic connection between pellagra, rheumatism and diabetes. The pathogenesis of both conditions is so obscure, however, that speculation on this question can only point out a direction for further research.

SURGERY.

Obstructive Growths of the Pylorus.

J. E. ALLABIN (*Journal American Medical Association*) draws the following conclusions from his observations of these obstructions:—

1. Cancer is one of the most potent factors in the causation of death with a tendency to constantly increase in frequency of occurrence.
2. Gastric cancer occurs in about one-fifth of all primary cases.
3. In gastric ulcer the pyloric region is affected in sixty per cent. of the cases.
4. The treatment of gastric ulcer directed toward permanent cure is, in the present state of our knowledge, limited wholly to surgical methods.
5. As early total extirpation of malignant growths with the hope of permanent cure is the goal toward which we are constantly striving, and as these growths in gastric cancer occur at the pyloric region in sixty per cent. of the cases, it would seem to follow as a natural conclusion that pylorotomy would be the treatment most frequently employed for the cure of this malady.

6. Inasmuch as early diagnosis is the greatest requisite for directing proper radical treatment, the internist and the surgeon should turn their best efforts in this direction.

7. If the operation of pylorotomy be performed before obstructive symptoms manifest themselves, and before the occurrence of metastasis, the immediate results will be as favourable as in any other abdominal work, and the remote results as good as in extirpation of carcinoma of the breast.

Advantages of Circumcision.

THE most obvious advantage of circumcision is cleanliness. This is important in childhood. In adults the habit of withdrawing the skin and washing the glans has usually been learned, though it is not practised sufficiently. In children it is not, as a rule, attempted; most boys would regard the attempt as indecent, and in many paraphimosis would result. Moreover, the practice would be injurious to morals; yet the accumulation of smegma and its decomposition is a source of annoyance and irritation to many boys. Further, any irritation of the glans penis is liable to produce reflex excitement of a character to be avoided. In middle life, to many the possession of a prepuce is a source of more or less habitual annoyance. Seborrhoea, balanitis, and herpes are common. As old age comes on, the danger of cancer to those who suffer from phimosis is considerable. Similarly, circumcision tends to prevent syphilis. While gonorrhoea is quite as common among Jews as among Christians, syphilis is much less so. This shows that it is not on morality that the comparative immunity of Jews to syphilis depends. The only possible explanation is the absence of the prepuce.

No measure which has ever been proposed for the prevention of syphilis is as efficient as circumcision. Finally, circumcision probably tends to increase the power of sexual control.—JONATHAN HUTCHINSON.

Removal of Tonsil and Adenoid followed by Fatal Result.

DR. J. A. STUCKY says:—The patient was a boy of 15 years, who had been in bad health for two months previous to the operation, having suffered from la grippe and quinsy. When seen by him he was pale and hectic, very weak, with temperature elevated. The left tonsil was enormously enlarged, with its crypts full of offensive pus. The pharynx contained adenoids. There was no active inflammatory condition present. The diagnosis made was of general septicæmia due to auto-toæmia. The patient was chloroformed and the tonsil removed with the tonsillotome, the adenoids with GORTSTEIN'S curette. Hemorrhage was rather more profuse than usual. Two hours after the operation very copious hemorrhage occurred, with symptoms of collapse. Examination after cleansing revealed no bleeding point, but very general venous oozing. This was soon checked, but in spite of transfusion, accompanied by vigorous stimulation, the patient died nine hours after the operation. He concludes that death was due to the boy's septic and exhausted condition, not to the anæsthetic, nor directly to the hemorrhage.

Prostatectomy and Prostatomy.

DR. S. ALEXANDER, of New York, in discussing this part of the subject, said that operation was demanded under the following conditions: (1) When complete retention of urine is due to prostatic outgrowths; (2) when there is marked and continuous vesical irritability (calculus excluded) due to intra-vesical outgrowths of the prostate; (3) when the amount of residual urine is steadily increasing in spite of intelligent catheterism; (4) when catheterism has become more and more difficult; (5) when catheterism is frequently followed by severe cystitis; (6) in severe vesical inflammation, obstinate to treatment; (7) when the patient cannot, or will not, use the catheter properly. An analysis of 205 operative cases had given a mortality of 21%, with 62% of cures, by which is meant the restoration of the power of voluntary micturition.—*Phil. Med. Jour.*

Inheritance of Syphilis.

FINGER says there is undoubtedly a purely paternal as well as purely maternal syphilitic inheritance. The purely maternal syphilis may be transmitted to the foetus through the ovum, or may be post-conceptional, transmitted through the placenta. The former is not proven, but only acknowledged as probable by analogy with the transmission through the semen, while the latter has been proven by a number of exact clinical observations. Syphilis in the mother, even when acquired in the last months of pregnancy, may pass to a foetus conceived while both parents were sound.—*Int. Med. Mag.*

Contusions.

DR. NAME (*Journal de Médecine*) gives these directions for the treatment of contusions:—(1) Rigorous antiseptics, careful cleansing of the parts with ether. (2) The application once or twice daily of collodion, containing from ten to twenty-five per cent. of menthol. Under this treatment the pain quickly subsides, and the constrictive influence of the collodion causes the disappearance of the effusion in from two to five days. Extensive contusions about the joints are not so favorably influenced.

OBSTETRICS AND GYNÆCOLOGY.

Indications for Version.

THE indications of version are elaborated by MARX, who classified them as follows: (1) Malposition and malpresentation. (2) Contracted pelvis, either relatively or absolutely so. (3) Prolapsed funis or allied condition. (4) For all other unclassified conditions, such as placenta prævia. (5) Except under very rare conditions in all cases in which the head remains above the brim, the exception being where there is a uterine rupture or Bandl contraction. This is the only indication for forceps as compared to version when the head is above the brim. In most of these prolonged labors, however, when the child has been already sacrificed, or is in immediate danger, elective perforation should be given the preference. When the child is *in extremis*, he thinks most of saving the life of the mother, and version is needed in all cases where the life of the mother is threatened, as, for example, by a uremic convulsion or an embolus of the lung, supposing, of course, a dilatable or one that is dilated. When such is not present, we must anticipate it with a rapid manual dilatation or deep DUHRSSSEN'S incision. The following operative rules are laid down, which have been of great value to him: (1) Always be sure of the position and the presentation. (2) Be sure that the foetus is alive or not in immediate danger. (3) Do version as early as possible in the presence of an intact fruit sac, or at least as soon after the rupture of the membrane as possible. (4) Always introduce the hand according to the position of the foetal feet. (5) Always turn the child in such a fashion as to keep Nature's classic ovoid intact, that is, carry the foot along the abdominal plane of the pelvis and not away from it. The technique and details are given. The limitations of the operation are also noted. We must estimate the operation from the standard of the average pelvis and average size of the child, and no operation short of perforation should be instituted in the presence of a dead or dying foetus. Our lowest limit for elective version would be in the case of a pelvis whose true conjugate is at or above 3.25 inches in the presence of an average sized or small child. These measurements would not hold good in the presence of a large or over-sized child. The use of the WALCHER position, when the head is passing the contracted inlet, is mentioned as of advantage, as increasing the true conjugate between one-half and three-fourths of an inch. Individual skill and experience are of importance, but he believes that the operation stands midway between forceps and Cæsarean section, and the field for symphysiotomy is growing smaller and smaller.—*Jour. Amer. Med. Assoc.*

Origin of Simple Cyst of the Ovary.

DR. O. VON KALDEN. (*Post-Graduate*) says:—The general opinion at the present time in regard to simple cysts (*hydrops folliculi*) of the ovary is that they are retention cysts originating in the Graafian follicles. FRANKENSTIEL and ORTH, however, think that some of them may be new growths. The theory of their origin from Graafian follicles originated with ROKITANSKY, who claimed to have found ova in cysts under the size of beans; in the larger cysts they could not be demonstrated. His observations have been copied in all text-books and special treatises without further verification. The ova he saw may have come from true Graafian follicles, or they may have been swollen, degenerated cells which resembled ova.

If the simple cysts are retention cysts, it is difficult to say why retention occurs. The cysts are very superficial; the albuginea is not thickened; the walls of the cysts are very thin; in typical cases there is no evidence of old adhesions on the surface; true Graafian follicles rupture without trouble beside these cysts. Evidently the etiology is unsatisfactory.

Moved by these facts, the author studied cystic ovaries from 19 cases, varying in age from 30 to 97 years. The ovaries were hardened *in toto*, and many sections made from each. His observations seem to show pretty conclusively that in many, perhaps all, cases these cysts do not arise from Graafian follicles, but from the germinal epithelium which

grows into the ovary in the form of fissures lined with epithelium, or of solid masses of epithelial cells; these give rise to glands which develop into cysts. The process has a certain analogy with the embryonic process, whereby the germinal epithelium grows in as PFLOGER'S tubes, to form the follicles.

This view of the origin of the cysts is based on the following reasons:—

1. It is possible in a great many cases to demonstrate ingrowths of the germinal epithelium. According to VON KAHLDEN, in the larger proportion of cases but little gland tissue is formed from these ingrowths, and that develops quickly into cysts. In a smaller proportion of the cases the new formation of epithelium is abundant; it occurs at first in the form of numerous closely adjoined masses of epithelium, which occasionally may resemble carcinoma. Degeneration takes place in these cells, leading early to the formation of the cysts.

2. Ova are not present in the cysts, even when the cysts are so small that it would be impossible for the ova to have degenerated.

3. Very rarely one of the cysts attempts to produce ova. VON KAHLDEN reports such a case, similar to one reported by NEUMANN. In the wall of the cyst were over a thousand ova-like bodies; some of them were very typical in appearance, but they never reach the normal size.

4. The cysts are often present years after the functional activity of the ovary has ceased.

VON KAHLDEN adopts the term "simple serous cysts," already proposed by PFANNENSTIEL as the most suitable designation for these cysts, and discusses at considerable length their relation to the other cystic growths of the ovary to which they must be regarded as related because intermediate forms occur.

Metrorrhagia due to Inflammatory Processes within the Pelvis.

E. B. CRAIGIN (*New York Medical Journal*) says:—Three factors must be considered in the etiology of metrorrhagia due to inflammatory conditions within the pelvis: First, the endometrium, where the sequence of changes is chronic congestion followed by chronic inflammation of the endometrium, menorrhagia, and metrorrhagia. Second, the muscular wall of the uterus: here the etiological factors are tumors of the uterine wall and chronic interstitial inflammation of the uterine wall, in which there is an atrophy of the muscular tissue and an increase of connective tissue. Third, the blood-vessels of the uterus. In the same way that interference with the normal muscular contraction of the uterine wall favors an excess of blood in and from the uterus, so interference with the normal contraction of the arteries themselves favors the same result. Occasionally, especially in the later part of menstrual life, and often associated with the two conditions just discussed, viz., tumors of the uterine wall and chronic interstitial inflammation of it, one finds the vessels of the uterus in a condition of arterio-sclerosis, with insufficient elasticity either to maintain the normal balance of uterine circulation, or to check the flow beginning at a menstrual period. Here, again, although this inflammation of the arterial wall usually produces metrorrhagia through the medium of a chronic endometritis, occasionally cases are met with in which the endometritis is slight, or does not respond to the use of the curette, and in which the hemorrhage seems due to the lack of contractile power in the arterial wall.

PHYSIOLOGY, PATHOLOGY, AND BACTERIOLOGY.

Nerves of the Capillaries, with Remarks on Nerve-Endings in Muscle.

DR. OHR. SIKLER (*Jour. of Exper. Med.*) says:—

1. The endings of the motor nerves in striped muscle remain on the outside of the sarcolemma. Aside from the surfaces of contact of muscle and nerve fibre, the end fibres are covered down to their tips with the sheath of SCHWANN, and are provided with nuclei. The precise condition of things at the places of contact of muscle and nerve is an unsolved problem of histology.

2. The ivy-like or festooned arrangement of motor nerves in the frog's muscle has been misinterpreted. Properly interpreted, it demonstrates that the nerve fibres that are to influence the muscle fibre are not naked, and that they need not be end fibres. It shows that mere contact between muscle fibre and nerve fibre is all that is necessary.

3. The sheath of HENLE in the frog and in the smaller muscle fibres of the snake is open, thus permitting escape of the cerebrospinal fluid.

4. In other animals HENLE'S sheath extends over the end fibres of the motor nerve, and the cells lining it envelope the end fibrilla. I find that the so-called "Sohlensubstanz" of KUHN is derived from the cells of HENLE'S sheath.

5. The terminal nerves in smooth muscle form a network entwining the bundles of muscle fibres. I consider it improbable that each plain muscle fibre has a special terminal nerve fibril.

6. In muscular tissue fine non-modulated nerves, probably belonging to the centrifugal, vasomotor system, proceed from the fasciculi of motor nerves. These nerves can be traced directly to a network of nerves surrounding the capillaries. From this network fine, nucleated, nerve fibres pass to the walls of the capillaries, with which they are very closely united.

7. The nerves supplying the capillaries connect also with sensory nerves and with nerves surrounding the larger blood-vessels, both arteries and veins.

8. The branches of the chorda tympani in the submaxillary gland do not pass to the gland cells, but they terminate on the capillaries.

9. In muscular and glandular tissues—and perhaps throughout the body—there is a vast peripheral nervous plexus belonging to the capillary blood-vessels. These nerves of the capillaries, which may perhaps be regarded as nutritive nerves, regulate the production and transudation of lymph, and are concerned in the mechanism of glandular secretion. They may be called into activity both by peripheral influences and by impulses received from the central nervous system and the sympathetic ganglia. They may influence, through their connections with the vasomotor nerves on the arteries and veins, the blood-supply to a part.

Psammons.

ENGERT (*Virchows Archiv*) shows that psammoma, like tumours, are very common upon the inner surface of the dura mater. An examination of a large number of dura matters resulted in his finding psammoma-like growths in every fifth or sixth case. In this way he collected twenty-five tumours, varying in size from a pin's head to a bean. They are most frequent upon the convexity. Histologically, they varied very much from fibrous growths, like fibromas, to cellular growths, like sarcomas; but in all cases they were arranged around a central blood-vessel, and this explained their tendency to calcification. He thinks the absence of a blood-vessel in the centre of some of the calcified foci to be due to the central blood-vessels having been very rudimentary, and to have sprung as a bud from another branch, and failed to develop a lumen.

fact alone will force the public to the irresistible conclusion that the number of plague cases placed under the heading "With buboes," with a view to dissipate all doubts, falls very much short of the actual one. Be that as it may, there will be no denying the fact that the results, even as they are shown above, are eminently satisfactory. The germicide in question has now unquestionably established its value by giving a much reduced death-rate in plague epidemic.

Another factor in connection with the above statement, which goes a great way to enhance the value of this germicide, is that almost all the patients that received the treatment were from among the low caste people, who are notorious for their susceptibility to plague and such kindred diseases on account of their scandalously filthy habits and living. The regular administration of the medicine and proper nursing, moreover, could not be expected from these ignorant and illiterate persons. In spite of all these adverse circumstances, the action of the germicide in question was marked and quick in lowering the temperature and crippling the further development of the disease, and thus hastening the recovery of those who availed themselves of it in time.

I would on the strength of this successful trial, fairly extensive, commend this Iodine Terchloride to the notice of those who are interested in the vexed problem of saving the unfortunate and helpless victims to this fell disease, and entreat them, one and all, to try this germicide in good earnest in all diseases of septic origin. There was, no doubt, the disposition to cry down this potent curative to the level of the much-advertised so-called patent medicines; but now happily the sign of correct understanding is distinctly observable, and I have no doubt that ere long all doubts and scruples regarding its use would vanish. I have reasons to hope that medical men would not look upon this Iodine Terchloride, which is nothing but a well-known and stable chemical compound, as in any way a strange drug of unknown and unreliable composition, but would hail it as the true non-poisonous germicide of which they were in sore need, and, shaking off all their prejudices, would accept this germicide with a satisfying sense of relief, giving up the harmful use either of depressant, diaphoretic and antipyretic remedies or stimulants such as strychnine, atropine, etc., in poisonous doses.

Before bringing these few remarks to a close, I embrace this opportunity of publicly expressing my gratitude to my late lamented friend, Dr. BHADURJI, whose encouragement at the initial stage of the trial was quite an incitement to me for further progress. Another gentleman who must rightfully claim my gratitude and that of the public at large is that unostentatious SHETH, NARAJI DWARKADAS, whose keen sympathy for suffering humanity, and enlightened interest in the solutions of the great scientific problems of the day, led him to voluntarily place at my disposal sufficient funds to carry on my investigation in this direction, and to give the benefit of the germicidal treatment to the poor. It will not be too much to say that the present accomplishment would, but for his help, have been almost an impossibility. Allow me, therefore, to publicly acknowledge with heartfelt gratitude, on behalf of myself and that of the public, the invaluable help, rendered by him. I must also thank those medical men and others who kindly assisted me with more or less energy and interest in the trial.

Yours, etc.,
T. K. GAJJAR.

TECHNO-CHEMICAL LABORATORY,
GIRGAUM, BOMBAY;

13th June 1901.

"SIR BALCHANDRA KRISHNA AND PROFESSOR GAJJAR'S IODINE TERCHLORIDE."

II.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—The following letter, dated Bombay, 1st June 1901, to Professor GAJJAR from Sir BALCHANDRA KRISHNA, affords valuable testimony re Iodine Terchloride in plague:—

"I beg to acknowledge the receipt of your letter of the 23rd April, asking me to give you the results of my trial of Iodine Terchloride in plague and other diseases, as well as the results of the trial of the drug in the Hindu Fever Hospital.

I have used the drug in the form of the Liq. Iodine Terchloride in about twenty-two cases of plague. Out of them twelve recovered and eight died. The result of the two has not been reported to me. I have treated about ten cases of malarial fever, of which eight recovered and two died. Of the fatal cases, one was a suspicious case, in which there was a difference of opinion as to the diagnosis. One medical practitioner and myself diagnosed it as a case of plague, but another medical gentleman of eminence held a different view. This case proved fatal on the seventh day, and I must say that a fair trial was not given to Iodine Terchloride. The other was a case of typho-remittent fever of a child aged two years, in which Iodine Terchloride was given for about four days before death, which took place on the twenty-first day.

In the ten cases of plague that recovered, the trial of the Iodine Terchloride was a fair one, and the drug was administered from the commencement of the symptoms. The cases were to all appearances very virulent, there being buboes in all of them, the temperature ranging from 104 to 106 and the pulse from 130 to 140. In all these cases a stimulant mixture, consisting of tinct. digitalis, *ap. amm. arom.* and caffeine citras, was prescribed in addition to the Iodine Terchloride, and was given alternately with a view to keep up the heart's action and to prevent its failure. A caustic application was applied to the buboes in all cases. In seven cases there was violent delirium, to subdue which, in addition to the internal treatment, a blister was put on the nape of the neck with a view to produce counter-irritation. It is noticeable that one of the patients, PAROJBAT MAMCHER, had a virulent attack of plague, and was treated with Iodine Terchloride with satisfactory results. Her husband and her daughter, nine years old, being in constant attendance upon her, likewise got the plague. They were removed to the Parsi Hospital, where they both succumbed. Iodine Terchloride was prescribed on the first day before removal, but I am unable to say whether or not it was continued later on.

Of the eight fatal cases five received very short and insufficient treatment with Iodine Terchloride. The cases came under my observation at a very late stage. Three of the cases were seen on the third or fourth day, one on the sixth, and one was only seen one hour before death. Iodine Terchloride was prescribed, but there was not enough time for the treatment to operate. In the remaining three cases the treatment described above was adopted. In one Khoja boy it was faithfully carried out. In the second, a Ghati girl, the treatment described above was adopted; but I do not know if it was properly administered. From inquiries made I have reason to believe that the treatment was not fully carried out. Of the third case I have heard nothing.

In all the cases in which the drug was used, the dose was from 10 to 30 minims, according to age, and 45 minims in cases of children, given every third hour. My experience is that smaller doses are more effective. Larger doses produce irritation of the mouth and stomach.

In none of the cases that were treated with the drug was any irritation or something produced by it, except in the suspicious case I have mentioned. In that case there was irritation of the stomach from the beginning of the attack, and the patient was able to retain medicines with great difficulty. I think the administration of a stimulant mixture, such as that mentioned above, is absolutely necessary. As the drug decomposes other medicines and cannot be given in combination with any of them, the safest plan is to prescribe a separate stimulant mixture, and the mixture should be given alternately. Within my experience this plan of treatment has so far answered well. I consider the drug to be a germicide, and its effects are apparent after three or four doses, when the temperature gradually falls, and the brain symptoms begin to yield. When an attack is virulent, the shock to the system is severe at the onset. This germicide kills the germs and arrests the further progress of the disease, but it has no stimulant properties. Hence, to prevent failure of heart, it is necessary to prescribe stimulants.

I have used neither strychnine nor atropine in any of the cases, and I believe they are not necessary; on the contrary, they are likely to counteract the action of the germicide.

The experience I have had so far has been very short. It is not sufficient to justify any definite conclusion. I venture to think that the results have been encouraging enough to warrant that the utility of such a drug should be tested throughout an epidemic, and in all phases of the disease, before a definite opinion is formed.

In conclusion, permit me to offer you my best thanks for the sample you have been good enough to send me for trial, and to request you to persevere in your well-meaning efforts in the cause of suffering humanity.

Yours, &c.,
T. K. GAJJAR.

A FITTING MEMORIAL TO VICTORIA THE GOOD.

TO THE EDITOR, "INDIAN MEDICAL RECORD."

Sir,—In the *Daily Mail*, London, dated the 21st May 1901, we read of a munificent gift of £2,000,000 for the exclusive benefit of Scotch students (male and female) to the Scotch Universities from Mr. CARRIDGE.

The gift is doubtless a splendid one, but is robbed of its sweetness and beauty by bearing the seal of doses, inasmuch as English, Colonial and Indian students, who have always to a very great extent patronised the Scotch Universities, are carefully excluded from its advantages, and the race of life is to be exclusively run by Scotch students (male and female). It savours too strongly of hermetically sealed capped fruit from across the Atlantic, and hence the canny Scotch papers have naturally "looked the gift horse in the mouth." All right-thinking Britons, and subjects of Great Britain in India and the Colonies, would question the fairness and right policy, as well as the liberal-mindedness, of such a policy of exclusion.

If such a scheme be accepted by the Scotch Universities, then it is high time that Englishmen, Colonials and Indians must "go one better" and create an Imperial Victorian University, where similar advantages might be attained by every student and bear the seal of our Imperial policy. By establishing such an Imperial University, with affiliated branches in India and the Colonies, it would not only help to cement that bond of good feeling, love and brotherhood throughout the empire; but draw the best talent from the branches to the centre. The best students might be sent home to finish their curriculum in Great Britain, and when thoroughly equipped, sent back to their

land of birth or retained in service for the needs of the Empire. We should then by some such process of selection by a properly trained committee arrive at a good selection, and not, as so often occurs, put the "square man in a round hole." The Imperial seal by the King's command would then be borne on the certificate or commission which the sons of the empire would take with them. By some such means the gates of a liberal, manly, strong and useful education to Imperial ends would be greatly achieved. Great Britain might make millions kings in the sense of true manliness and freedom, kings in uprightness of thought and character—kings worthy of that crown which our mothers taught us from the cradle are laid up for those that have loved and served and receive at last the "well done" of their Master and their King and Lord. But millions from the hands of a millionaire, whose seal is the policy of exclusiveness, and whose motto is "live, but don't let others live," breeds an army of selfish bigots who have lived on others and won't let others live. With such a policy England's love of fair-play, freedom and frankness of character would be doomed.

Yours, &c.,
"ONE OF HER SONS."

London, 21st May 1901.

BOOK REVIEWS.

A MANUAL OF SURGICAL TREATMENT. BY W. WATSON CHEYNE, M.B., F.R.C.S., F.R.S., Professor of Surgery, King's College London, Surgeon to King's College Hospital, etc., and F. F. BURGARD, M.D., M.S., LOND., F.R.C.S., ENG., Teacher of Practical Surgery, King's College, London, Surgeon to King's College Hospital, &c. (In Six Parts.) Part IV. (Publishers: Longmans, Green & Co., 39, Paternoster Row, London, and Bombay, 1900.) The earlier volumes of this standard work have already been favorably noticed in this journal. The present volume surpasses former ones and deals with the subject of the surgical affections of the joints and spine, including excisions. It is beautifully illustrated and excellently printed. The high standard of methodical arrangement of facts is thoroughly maintained in the present volume.

TEXT-BOOK OF MEDICINE. EDITED BY GEORGE ALEXANDER GIBSON, M.D., D.Sc., F.R.C.P., EDIN., Physician to the Royal Infirmary, Edinburgh. (In Two Volumes.) (Publisher: Young J. Pentland, Edinburgh and London, 1901.) These volumes are edited by Dr. Gibson, but no less than 36 British physicians of the highest repute have contributed the special articles of which the books are largely made up. This very diversity of specialism gives this text-book an extraordinary value, both as a work of reference to the busy practitioner and as a trustworthy source of the fullest information to the medical student, on every topic of medicine. A careful perusal of Dr. Gibson's book proves that it aims at being quite up-to-date, and as such, it has fulfilled that aim perfectly.

GYNÆCOLOGICAL OPERATIONS. BY SKENE KEITH, M.D., F.R.C.S., EDIN. (Publisher: Young J. Pentland, Edinburgh and London, 1900.) The author does not include abdominal surgery in this work. As a guide to gynecological practice, Dr. Keith's little book is unique. It is the most sensibly written work on this subject. No gynecological student can afford to be without it.

Government Medical Gazettes.

BOMBAY.

Major M. A. T. Collie, M.B. (Aber.), O.M., I.M.S., is allowed sixteen days' privilege leave in combination with furlough for one year.

Khan Bahader Kalkhauri Barjorji Cooper, L.M., acting Civil Surgn., Broach, is allowed privilege leave of absence for three months.

His Excellency the Govr. in Council is pleased to appt. Asst. Surgn. Venkatesh Balwant Karandikar, B.A., L.M. & S., to act as Civil Surgn., Broach, during the absence on leave of Khan Bahader Kalkhauri Barjorji Cooper, L.M.

Lieut. Col. J. McCloghry, F.R.C.S., I.M.S., Civil Surgn., Karachi, is granted privilege leave of absence for three months (out of two months' privilege leave earned by plague duty and forty-six days ordinary privilege leave) in combination with furlough for one year and eight days.

Major W. H. Burke, M.B. I.M.S., acting Surgn. to the Gokaldas Tejpal Hosp., Bombay, is granted two months' privilege leave in combination with sixteen months' furlough.

His Excellency the Govr. in Council is pleased to make the following appts:—

Major J. G. Hojel, M.B., B.S., I.M.S., to act as Surgn., Gokaldas Tejpal Native Gen. Hosp., during the absence of Major W. H. Burke, M.B., I.M.S.

Major R. J. Baker, M.D., I.M.S., to hold ch. of the office of Surgn., Gokaldas Tejpal Native Gen. Hosp., in addn. to his own duties, from the date of departure of Major Burke.

Major W. F. Corkery, I.M.S., on return from leave, to act as Civil Surgn. Ahmednagar, during the absence of Major Hojel.

Major H. W. Stevenson, I.M.S., to act as Civil Surgn., Karachi, during the absence of Lieut. Col. J. McCloghry, F.R.C.S. (I.), I.M.S.

Capt. S. H. Burnett, M.B., O.M., I.M.S., to act as Civil Surgn., Supdt. Lunatic Asylum, and Supdt., Med. School, Hyderabad, *vice* Major Stevenson.

Capt. T. Jackson, M.B., B.S., I.M.S., to act as Resident Surgn., St. George's Hosp., Bombay, *vice* Major Burnett.

Major A. V. Anderson, M.B., B.S., to act as Civil Surgn., Naskh, in addn. to his own duties, during the absence of Major M. A. T. Collie, M.B. (Aber.), O.M., I.M.S.

Asst. Surgn. Ramchandra Sulajji Poradi, L.M. & S., was on gen. duty on the 24th and 25th Nov. 1900.

His Excellency the Govr. in Council is pleased to appt. Asst. Surgn. Phirosha Palanjil Mullan, L.M. & S., to act as Civil Surgn., Sholapur.

Lieut. Col. W. C. Davidson, I.M.S., Civil Surgn., Dharwar, is allowed furlough on med. certificate for fifteen months from the 23rd Dec. 1900.

BENGAL.

Asst. Surgn. Krishna Kiegra Chanda is apptd. to act as Inspector of the Animal Vaccination Depot, Calcutta, during the absence of Asst. Surgn. Hari Pado Mukerjee.

Asst. Surgn. Bana Mali Roy is apptd. House surgn. of the Esra Hosp., Calcutta.

Asst. Surgn. Debendra Nath Hazra is allowed leave on med. certificate for six months.

Asst. Surgn. Nemat Churn Chatterjee, of the Motihari Disp., is allowed leave for three months from the date on which he may avail himself of it.

Asst. Surgn. Rojool Kanto Das Gupta, Madhubani Sub-Div. and Disp., is allowed privilege leave for three months from the date on which he may avail himself of it.

Asst. Surgn. Bana Mali Roy is apptd. to do suppy. duty at the Med. College Hosp., Calcutta, from the 18th May 1901.

Asst. Surgn. Kasi Nath Ghosh is apptd. to act at the Diamond Harbour Sub-Div. and Disp. in the 24 Parganas dist. during the absence of Asst. Surgn. Broje Nath Chowdhury.

Asst. Surgn. Joy Krishna Gupta, officiating at the Diamond Harbour Sub-Div. and Disp., is apptd. to act at the Subdiv. and Disp. at Madhubani, in the Darbhanga dist. during the absence of Asst. Surgn. Kasi Nath Ghosh.

Asst. Surgn. J. Daley is apptd. to act as an Asst. Health Offr. of the Port of Calcutta from the 16th May 1901.

Capt. J. C. S. Vaughan, I.M.S., Civil Surgn. of Bardwan, is apptd. to act as Civil Surgn. of Mandiarpur from the 14th May 1901.

Dr. A. W. Reid, officiating Civil Med. Offr., Rangpur is apptd. to fill in as Civil Med. Offr. of Bardwan from the 10th May 1901 during the absence of Capt. J. C. S. Vaughan. Asst. Surgn. Mohendra Nath Das, of the Jamsore Disp., held med. ch. of the civil sta. at Jamsore from the 20th to the 24th Feb. 1901.

Lieut. J. W. D. Magaw, I.M.S., Regimental Med. Offr., Dinapore, held med. ch. of the civil sta. of Dinapore from the 6th May to the 13rd June 1900.

Capt. C. A. Lane, I.M.S., is apptd. to act as a Resident Med. Offr., Med. College Hosp., from the 28th March 1901.

CENTRAL PROVINCES.

On being relieved by Civil Hosp. Asst. Ramkrishna Balwant, on return from leave, Civil Hosp. Asst. Pandurang Lakshman, tempy. attached to the Betul Branch Disp., is directed to do duty under the orders of the Civil Surgn., Betul.

Privilege leave for one month and twenty-one days is granted to Civil Hosp. Asst. Ramlal, attached to the Hatta Branch Disp., Damoh, from the 11th May 1901, or any subsequent date on which he may be permitted to avail himself of it.

Civil Hosp. Asst. Ramkrishna Palkaji, on gen. duty at Jabalpur, is apptd. to the Hatta Branch Disp., Damoh, during the absence on leave of Civil Hosp. Asst. Ramlal.

The following transfers are ordered among Civil Hosp. Assts. in the Betul Dist.:

Pandurang Lakshman, from gen. duty to the Jail and Police Hosps.

Mamtasullah Khan, from Jail and Police Hosps. to gen. duty.

On relief by Civil Hosp. Asst. Ramdin, on return from leave, Hosp. Asst. Imam Khan, tempy. attached to the Makrai State Disp., Hoshangabad Dist., was placed on gen. duty at Hoshangabad.

Hosp. Asst. Imam Khan, on gen. duty at Hoshangabad, is apptd. to the Jail Hosp., Chanda.

Hosp. Asst. Srikrishna is apptd. to the Brahmapuri Branch Disp. in that dist.

Hosp. Asst. Kunj Bihari Lal, attached to the Brahmapuri Branch Disp., is transferred to Chania for gen. duty.

Hosp. Asst. Surendranath Chakrawarti, attached to the Police Hosp., Sambalpur, was transferred to the Puljhar Zamindari Disp. in that dist.

Hosp. Asst. Ushnathi Parshad Das, attached to the Puljhar Zamindari Disp., was transferred to the Police Hosp., Sambalpur.

Hosp. Asst. Aminuddin, on gen. duty at Nagpur, is apptd. to the Puljhar Zamindari Disp. in the Sambalpur Dist.

Hosp. Asst. Surendranath Chakrawarti is transferred to Nagpur for gen. duty.

Hosp. Asst. Satashiv Pandurang, on gen. duty at Nagpur, is apptd. to the Police Hosp., Nagpur.

Leave on med. certificate for one month is granted to Vishram Sitaram.

Hosp. Asst. Guleb Singh, on gen. duty at Nagpur, is granted leave from the 26th May 1901.

Hosp. Asst. Bhagwant Das Misra is directed to resume charge of the Jail and Police Hosps., Hoshangabad.

Hosp. Asst. Banode Behari Maiti, tempy. attached to the Jail and Police Hosps., Hoshangabad, is directed to do duty under the orders of the Civil Med. Offr. at that station.

Hosp. Asst. Sheikh Wali Muhammad is apptd. to the Main Disp., Chhindwara.

Hosp. Asst. Yado Rao, attached to the Chhindwara Main Disp., is granted privilege leave for two months from the date of relief by Sheikh Wali Muhammad.

N. W. P. & OUDH.

Civil Asst. Surgn. Bhopla Nath, attached to Sader Disp., Baddi, privilege leave for one month from the date on which he may avail himself of it.

Hosp. Asst. Abdul Yaq Khan, on reserve duty, Baddi, to the ch. of Sader Disp., Baddi, as a tempy. measure.

Civil Asst. Surgn. Datta Ram Chandra, on leave duty at Baddi in the Dehra Doab Dist., to the ch. of Sader Disp., Salsarpur.

